4. WordPerfect 7c

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1. WordPerfect 7c

Administration

The user who installed WordPerfect became the primary WordPerfect administrator. As such, that user owns all the WordPerfect program files, can add or edit shared printers, set system default preferences, and so on. On your system, root may be the primary WordPerfect administrator, or another user may have been chosen when WordPerfect was installed.

The primary WordPerfect administrator can authorize other users as WordPerfect administrators, who then share authority over shared printers and system default preferences. The primary WordPerfect administrator and other WordPerfect administrators can restrict certain print permissions of other users. However, <u>superuser</u> privileges are required to work with the <u>License</u> Manager, because it may be monitoring other products in addition to WordPerfect.

Choose from the following topics for more information on managing your WordPerfect installation:

- < < Authorize WordPerfect Administrators > >
- < < Restrict Users' Print Privileges > >
- < < Restrict Users' File/Shell Access > >

Authorize WordPerfect Administrators

The primary WordPerfect administrator can authorize other users to perform activities that affect all users, including:

- Adding shared printers to WordPerfect
- Creating WPApp printer destinations
- Stopping the Print Server
- Authorizing additional WordPerfect administrators
- Establishing default preferences for all WordPerfect users

Steps

To authorize WordPerfect administrators,

- Start WordPerfect as a WordPerfect administrator. < < HINT: See below. >>
- 2 Press **Setup**, then press **8** for Administration.
- Press 1 for Add to display the Add Groups/Users screen.

The list includes all local users and groups. If you are using NIS, the list also includes the users and groups listed in your NIS password file and groups file.

Move the bar cursor to the user or group you want to have WordPerfect administrator privileges and responsibilities. Groups in the list are bolded to distinguish them from individual users.

HINT: If the list is long, press n for Name Search, then begin typing the name of the user or group until the list scrolls to it. Use Down Arrow and Up Arrow to adjust the list as needed.

- 5 Press Enter to authorize the user or group. The user or group is added to the list in the Authorized Groups/Users screen.
- 6 Repeat steps 3 through 5 for each user or group you want to authorize.
- 7 Press **0** for Exit to return to the WordPerfect document screen.

Restrict Users' Print Privileges

As a WordPerfect administrator, you can restrict users and groups from performing specific print-related activities.

Steps

To restrict users' print privileges,

- 1 Start WordPerfect as a WordPerfect administrator.
 - < < HINT: See below. > >
- 2 Press **Setup**, press **6** for User Restrictions, then press **1** for Printer.
- 3 Press 1 for Add to display the Add Restricted Groups/Users screen.

The list includes all local users and groups. If you are using NIS, the list also includes the users and groups listed in your NIS password file and groups file. All users and groups are granted full printing privileges by default. User settings override group settings.

Move the bar cursor to a user or group to restrict.

If the list is long, press n for Name Search, then begin typing the name of the user or group until the list scrolls to it. Use Down Arrow and Up Arrow to adjust the list as needed.

Set any of the following restrictions:

Initialize Printer Maximum Priority Printer Control **Printer Creation**

- 6 Repeat steps 4 and 5 for each user or group to restrict.
- 7 When you are finished restricting users, press **0** for Exit.

The user/group names display with the restrictions you selected. You can change any restrictions by resetting the restrictions for the user or group.

To delete users or groups from the list in the Print Restrictions screen so that they are no longer restricted in any way,

Move the bar cursor to the name you want to delete, then press 2 for Delete.

Restrict Users' File/Shell Access

WordPerfect respects the UNIX permissions set on files and directories.

If the UNIX permissions do not allow a particular user or group to read or write to a file or directory at the system level, then that user or members of that group cannot read or write to the file or directory in WordPerfect. However, WordPerfect supports only primary groups; membership in a secondary group does not grant users access to files and directories in WordPerfect that they could access at the system level.

In addition, you can create additional restrictions on file access. You can also prevent groups of users from accessing the UNIX shell and from using the List Files feature of WordPerfect to change directories.

Steps

To restrict users' file/shell access by group,

- Start WordPerfect as a WordPerfect administrator.
 - < < HINT: See below. > >
- 2 Press Setup, press 6 for User Restrictions, then press 2 for Miscellaneous to display the Restrict Group screen.

The list includes all local groups. If you are using NIS, the list also includes the groups listed in your NIS groups file. All groups are granted full file/shell access by default.

Move the bar cursor to group to restrict.

HINT: If the list is long, press n for Name Search, then begin typing the name of the group until the list scrolls to it. Use Down Arrow and Up Arrow to adjust the list as needed.

Set any of the following restrictions:

File Access

Shell

List Files

File Access

Determines which users can access files: defaults to no restrictions. Press 1 for File Access. Press 1 for Owner so that members of the selected group can access only files they own, thereby overriding any group or other privileges the UNIX permissions might grant. Or press 2 for Group, thereby overriding any other privileges the UNIX permissions might grant. Or press 3 for Both to require both ownership and group privileges. Or press 4 for All to allow all granted UNIX privileges.

Shell

Prevents users from using the Go to Shell feature in WordPerfect; defaults to no restrictions. Press 2 to toggle the setting.

List Files

Prevents users from displaying the List Files screen; defaults to no restrictions. Without List Files, users cannot change directories in WordPerfect. They must use the Retrieve feature and type the filename of the WordPerfect document to retrieve. If the document is not in the current directory, they must type the full pathname of the file.

- Repeat steps 4 and 5 for each group to restrict.
- 7 When you are finished restricting users, press **0** for Exit until you return to the WordPerfect document screen.

Hint

Steps

To start WordPerfect as a WordPerfect administrator,

- 1 Log in as a WordPerfect administrator.
- Change to the WordPerfect wpbin directory.
- 3 Make sure the WPTERM52 environment variable is set properly for your terminal.
- Type ./wp -adm, then press Enter to start WordPerfect.

WordPerfect Startup Options

One way to modify the functioning of WordPerfect for an editing session is to use startup options. The list below summarizes the startup options you can use when starting WordPerfect.

Filename startup option

If you provide the name of the file to edit, WordPerfect opens the specified file as you enter WordPerfect. If the file is not in the default document directory, you must include the full pathname.

-adm Administrator startup option

The -adm startup option starts WordPerfect with WordPerfect administrator access so you can set system default preferences, add and edit shared printers, and perform other administrator functions.

-ignore Ignore personal settings file startup option

The **-ignore** startup option starts WordPerfect without using the settings in your personal .wp60.set settings file in the .wpcorp subdirectory of your home directory and uses the system defaults instead.

This option is a helpful troubleshooting tool to use when only a single user cannot start WordPerfect. It shows whether or not that user's personal .wp60.set settings file is causing the problem.

-lang Language startup option

The **-lang** startup option starts the program in the language indicated by the two-letter language code, if that language is installed on your system.

-macro Start macro startup option

The **-macro** startup option starts the specified macro as you enter WordPerfect. If the macro is not in the default macro directory or supplemental macro directory, you must include the full pathname.

Turn off backups startup option -nobackup

The **-nobackup** startup option turns off Timed and Original Backup for the current session of WordPerfect.

This option is useful if disk space is limited. However, if you use this option and a system failure occurs, changes made to your document since the last time you saved your document are lost.

-printer Printer startup option

The **-printer** startup option makes the specified printer your default printer for the current session.

The printer name must appear exactly as it does in the Select Printer dialog box in WordPerfect. If the printer name consists of more than one word, it must be surrounded by quote marks.

Regenerate tables startup option -recover

The **-recover** startup option regenerates documents that are not functioning properly, especially documents with tables. If you cannot open a document or move around normally in a table, start WordPerfect with this option, then open the problem document.

Delete personal settings file startup option -restore

The **-restore** startup option deletes the user's personal **.wp52.set** settings file to restore access to the system default settings file. Users' personal .wp52.set files are stored in the .wpcorp subdirectory of their home directories.

This option is helpful if you want users to return to using the system default settings. It is also useful if ignoring a user's personal settings file has solved a user's problem accessing or printing from WordPerfect.

-setup Setup directory startup option

The -setup startup option sets the directory from which you want the program to read the .wp52.set settings file. You must provide a full pathname.

-temp Temporary directory startup option

The **-temp** startup option sets the full pathname of the directory where you want WordPerfect to store its temporary files (both document related and print related).

HINT: When using a startup option, you only need to provide enough characters to make it unique. For example, -m is sufficient to specify the -macro startup option, but -rec would be needed to differentiate -recover from -restore.

Environment Variables

You can set environment variables to make the process of starting WordPerfect easier for your UNIX users.

Environment variables are values set at the system level that programs can check during execution to determine what environment they are running in. For example, when you enter a command to start a program, the operating system checks the PATH environment variable to determine which directories to search for the program.

For convenience, you may want to add the WordPerfect wpbin directory to the PATH environment variable for all users. You may also want to add the WordPerfect shbin10 directory to the PATH environment variable for yourself and any users you designate as WordPerfect administrators.

The functioning of WordPerfect is affected by five environment variables:

PATH WPTERM52 **WPTMP SHTMP WPLANG**

PATH Environment Variable

After you can start WordPerfect from the command line, you can add the WordPerfect wpbin directory to your path to make the process easier.

Steps

If you are using the C shell, type setenv PATH 1 **\$PATH\:/WPdir/wpbin**, then press Enter. or...If you are using the Bourne shell, type **PATH = \$PATH:/WPdir/wpbin;export PATH**, then press Enter.

HINT: PATH must always be typed in uppercase letters. If you are not sure which shell you are in, try the first command. If you receive an error message, use the second command.

To verify that the WordPerfect wpbin directory has been added to your path,

Type env | grep PATH or echo \$PATH, press Enter, then verify that the wpbin directory has been added.

If you want to make this setting permanent, you can add the commands to set environment variables to users' .profile or .login files so the commands are executed every time users log in. Use a UNIX text editor such as vi to make the changes.

WPTERM52 Environment Variable

When you run WordPerfect 5.2 +, you must set the WPTERM52 environment variable to indicate which terminal driver to access. During installation, terminal drivers were installed in the WordPerfect shlib10 directory. The name of each terminal driver (.trs file) matches the setting of the WPTERM52 environment variable you use to access it, except that the WPTERM51 setting does not include the .trs extension.

Steps

In the step below, replace setting with the WPTERM52 setting for your terminal. To set the WPTERM51 environment variable,

1 If you are using the C shell, type setenv WPTERM52 setting, then press Enter.

or... If you are using the Bourne shell, type WPTERM52 = setting; export WPTERM52, then press Enter.

HINT: The WPTERM52 environment variable must be typed in uppercase letters. If you are not sure which shell you are in, try the first command. If you receive an error message, use the second command.

To verify that the WPTERM52 environment variable has been set,

Type env | grep WPTERM52 or echo \$WPTERM52, press Enter, then verify that the variable is set correctly.

HINT: If you are having trouble finding a terminal driver that works with your terminal, see < < Terminal Troubleshooting > > . In the main WordPerfect 5.2 + SysAdmin Help Contents screen, choose 2.. Troubleshooting, then view Terminals.

WPTMP and SHTMP Environment Variables

WordPerfect creates document-related temporary files for each active user and, by default, stores them in /tmp. If you do not have enough space in /tmp to accommodate users' temporary files, you can set the value of the WPTMP environment variable to a different directory.

You can set WPTMP to the same directory for all WordPerfect users, so that all users' temporary files are created in the designated directory instead of the /tmp directory. You can also set users' WPTMP environment variable to different directories for different users, such as users' home directories, so that document-related temporary files get distributed across your system.

By default, WordPerfect creates print-related temporary files in /tmp/wpchostname.

If you do not have enough space in /tmp/wpc-hostname to accommodate users' temporary print files, you can set the SHTMP environment variable for all users to a different directory. All users on the same host machine must have the same SHTMP setting.

IMPORTANT: Although personal, document-related temporary files can be stored in multiple locations, all print-related temporary files must be stored in a single location on the same host machine to avoid printing problems for WordPerfect users.

When you start WordPerfect, you can customize where it stores its temporary files by setting the WordPerfect environment variables. In the commands below, VARIABLE is either WPTMP or SHTMP.

Steps

If you are using the C shell, type seteny <u>VARIABLE/directory</u>, then press Enter.

or... If you are using the Bourne shell, type <u>VARIABLE</u> = <u>/directory</u>; export <u>VARIABLE</u>, then press Enter.

To verify that the WordPerfect environment variable has been set,

Type env | grep TMP, press Enter, then verify that the WordPerfect environment variable is set correctly.

If you want to make this setting permanent, you can add the commands to set environment variables to users' .profile or .login files so the commands are executed every time users log in. Use a UNIX text editor such as vi to make the changes.

WPLANG environment variable

By default, WordPerfect runs in the language chosen as the system default during installation. You can change an individual user's default language by setting the WPLANG environment variable to the preferred language using its two-letter language code.

For users who normally run WordPerfect in a language other than the system default, the WPLANG environment variable should be set for the desired language each time they log in. You can add the command(s) to set WPLANG to each user's .profile or .login file.

In the following commands, replace *langcode* with the two-letter code for the preferred language.

If you are using the C shell, add this command to each user's .profile or .login file to set the default language for the user:

setenv WPLANG langcode

If you are using the Bourne shell, add these commands:

WPLANG = <u>langcode</u> export WPLANG

Languages and Language Codes

Each WordPerfect language version has a corresponding two-letter code. You use the language code when you start WordPerfect to select the language

WordPerfect will run in (if you have multiple languages installed on your system). The languages in which WordPerfect may be available and their corresponding language codes are listed below.

| Code |
|------|
| dk |
| nl |
| ea |
| OZ |
| ce |
| uk |
| us |
| su |
| cf |
| fr |
| de |
| sd |
| it |
| no |
| ca |
| es |
| |

IMPORTANT: Not all languages are currently available for all versions of UNIX. To find out which languages are available for your version of UNIX, contact WordPerfect for UNIX Sales. All WordPerfect for UNIX phone numbers are listed in the < < WordPerfect for UNIX Telephone Directory > >. In the main WordPerfect 5.2 + SysAdmin Help Contents screen, choose 3..Info_Sources, then view I. WordPerfect Telephone Directory.

Terminal Setup Tools

WordPerfect uses proprietary terminal definitions to format and accept commands from terminals. For proper communication, it is necessary to set the WPTERM52 environment variable to the appropriate definition name. WordPerfect has provided terminal setup tools to allow you to specify WPTERM52 settings for individual terminal devices and/or terminal types. Other environment variables, such as WPGRAPHICS or WPLANG, can be specified as well. These tools are: wptmap.dat, wptmap, and wpt. The wptmap.dat is a file created by the system administrator designating environment variables for individual device names or terminal types. The wptmap program accesses specific information from the wptmap.dat and reports it in the desired format. The wpt program will cause WordPerfect to be started in a shell preset with the environment variables designated for the current tty.

The wptmap.dat File

As a WordPerfect administrator, you create a new wptmap.dat file to map terminal devices or terminal types to specific WPTERM52 settings. This file must be created and stored in the shlib or other designated directory in order for the wptmap and wpt programs to work. As changes occur in your organization, you can keep user environment information up to date from a single location, the wptmap.dat file.

The following is a sample wptmap, dat installed in the shlib directory and used in the examples given. (The sample wptmap.dat installed in the shlib directory is completely commented out to prevent use.)

```
# Syntax
< Key > [ | < Key > ...]: < Variable > = < Value > : [ < Variable > = < Value > :.
..]
       #Color console
       console:WPTERM52 = scoconscol:\
              WPGRAPHICS = vga:
       #Terminal attached to tty01 is a Wyse 60 with 12 function keys
       /dev/tty01 | wy60epc:WPTERM52 = wyse60epc:\
              WPGRAPHICS = mosaic 1x6:
       #Terminal attached to tty02 is a Wyse 60 with 10 function keys
       /dev/tty02 | wy60:WPTERM52 = wyse60asc:\
              WPGRAPHICS = mosaic 1x6:
       #Terminal attached to tty03 is a VT 220
       /dev/tty03 | vt220:WPTERM52 = vt220:
       #Personal language defaults
       bill | jane: WPLANG = fr:
       betty tom: WPLANG = es:
```

In the Color Console record used in the example, the key field is console, the variable fields are WPTERM52 = scoconscol and WPGRAPHICS = vga.

Lines beginning with # are comments. Records are delimited with a new-line character. Each record consists of a key field, plus one or more variable fields. Fields within each record are delimited a colon (:). Spaces and tabs are ignored.

The key field can contain terminal devices (such as /dev/tty01), general terminal types (such as wy60), or any other tags you find useful. You may use the UNIX tty command to determine device names for terminal serial lines. Be sure that the a key field matches the device name exactly (including path). Multiple keys in the key field are separated with a vertical bar (1).

The variable field(s) provide the environment variables and settings to which the key(s) map. Use an equal sign (=) between the environment variable and its setting.

To extend a single record to multiple lines, use a back slash (\) as a continuation character so that the following new-line is not interpreted as a record delimiter.

Comments can only be placed between records.

The wptmap.dat must have read permissions for all users, and should generally be stored in the shlib directory. It is possible to store the wptmap.dat in an alternative directory if an appropriate SHLIB environment variable has been set.

The wptmap Utility

The wptmap utility is located in the shbin10 directory. It works in conjunction with the wptmap.dat file located in the shlib10 directory. Wptmap reads the wptmap.dat file to return environment variable settings based on the keys you provide. The wptmap utility is a tool to help you establish user environments. It does not actually set any environment variables. It simply reports the information stored in the wptmap.dat for the designated key in the format desired. Command line options control the type and format of information returned by wptmap. The wptmap command must be followed by a key listed in the wptmap.dat file. It may also include any of the command line options shown below. The syntax is: wptmap < command line option > < key >

No command line options

With no command line options specified, wptmap displays the assigned WPTERM52 for the key you provide. For example, if you type wptmap /dev/tty01, wptmap queries the wptmap.dat file for /dev/tty01 and returns the specified WPTERM52. Using the sample wptmap.dat shown above, the response would be:

wyse60epc

Help command line option -h

The -h command line option displays the wptmap usage message, which lists all command line options.

-f Filename command line option

The **-f** command line option overrides the default map file name (wptmap.dat) and specifies a different file for wptmap to read for mapping information.

-d **Directory command line option**

The -d command line option overrides the default directory where the map file is located (shlib10 or the directory set by the SHLIB environment variable) and specifies a different directory to find the map file in.

Environment variable command line option -V

The -v command line options reports only the designated environment variable. For example, if you type wptmap -v WPGRAPHICS wv60, wptmap returns mosaic_1x6 (based on the sample wptmap.dat file provided).

Shell script command line option -S

The -s command line option provides all the environment variables for the specified key in shell script format. For example, if you type wptmap -s wy60, wptmap returns:

> WPTERM52 = wyse60epc; export WPTERM52; WPGRAPHICS = mosaic_1x6;export WPGRAPHICS;

You include the -v command line option to specify a single environment variable. To receive only the WPGRAPHICS variable, type wptmap -v WPGRAPHICS -c wy60.

This does not set the environment variables, but simply reports the correct syntax to be used within this environment.

-C C shell-script command line option

The -c command line option provides all the environment variables for the specified key in C-shell script format. For example, if you type wptmap -c /dev/ttv01, wptmap returns:

> setenv WPTERM52 wyse60epc; setenv WPGRAPHICS mosaic_1x6;

You include the -v command line option to specify a single environment variable. To receive only the WPGRAPHICS variable, type wptmap -v WPGRAPHICS -c /dev/tty01.

This does not set the environment variables, but simply reports the correct syntax to be used within this environment.

Error Messages

This section describes the possible error messages from this utility, and where needed, how to remedy them.

.../wptmap.dat Not Found

The text file containing the key and environment variable information is not found in the shlib10 or designated directory. This file must be created before wptmap can continue.

Specified Key not found in .../wptmap.dat < Specified Key > The specified key was not found in any key field of the wptmap.dat file located in the shlib10 or designated directory.

Specified Variable not found in .../wptmap.dat for < Specified Key > The specified environment variable was not found in the variable field for the specified key in the wptmap.dat file.

Invoking WordPerfect with Terminal Options (wpt)

The wpt executable is located in the wpbin directory. A wptmap.dat file must be created using device names as keys. Be sure that a key field matches the device name exactly. The wptmap.dat must be stored in the shlib10 directory and have read permissions for all users. Once a wptmap.dat has been created, wpt may be used to start WordPerfect using the variables designated in wptmap.dat. The wpt executable will cause wp to be started in a shell preset with the environment variables designated for the current device (tty). For example, if a user logs in on /dev/tty01, and then executes wpt, the information from wptmap.dat for /dev/tty01 will be read. The designated environment variables will then be set, and WordPerfect will be launched. This allows the setting of environment variables to be transparent to the user. It also allows users to log in from a variety of locations using the same login or profile information. Maintenance for WordPerfect environment variables is confined to a single location, the wptmap.dat file.

This process can be simulated in a WordPerfect startup script or in users' startup files (.login or .profile) if desired.

WordPerfect Startup Script

A simple startup script from a C-shell might look like the following example:

> TTY = 'tty'setenv WPTERM52 'wptmap \$TTY' /usr/wpbin/wp

This script uses wptmap to look up the appropriate WPTERM52 setting in the wptmap.dat file based on the user's current terminal device. (Refer to the sample wptmap.dat file provided.) The \$TTY may be replaced with \$TERM if you prefer to map from users TERM environment variable rather than terminal device. This should be used with caution if users log in from various terminals.

Users' Startup Files

System Administrators who prefer to control users' environments from their .profile or .login files can incorporate the wptmap utility into these startup files. The following insert is an example of lines that might be added if a bourne shell or korn shell is being used:

```
TTY = 'tty'
eval 'wptmap -s $TTY'
eval 'wptmap -s $USER'
```

NOTE: The eval command is not available in some C-Shell environments. The setenv commands may be used as illustrated in the start up script example..

Assuming a wptmap.dat file similar to the example above being used, the first UNIX eval command would be replaced with the command to set the user's WPTERM52 environment variable appropriately, based on the terminal device. (Using the sample wptmap.dat file, /dev/tty01 and /dev/tty02 would also have a WPGRAPHICS setting provided, but /dev/tty03 would not.) The second eval command would be replaced with the command to set the user's WPLANG environment variable, based on the user's login name.

Identical lines in all users' startup files would produce customized environment variable settings for each user according the device and user name for the current session.

Language Versions

WordPerfect is available in a number of languages, providing translated menus, help files, and messages, as well as a language-specific spelling dictionary and thesaurus for each language. If you have more than one language version on your system, WordPerfect can display in any of the installed languages.

Languages and Language Codes

Each WordPerfect language version has a corresponding two-letter code. You use the language code when you start WordPerfect to select the language WordPerfect will run in (if you have multiple languages installed on your system). The languages in which WordPerfect may be available and their corresponding language codes are listed below.

> IMPORTANT: Not all languages are currently available for all versions of UNIX. To find out which languages are available for your version of UNIX, contact WordPerfect for UNIX Sales. All WordPerfect for UNIX phone numbers are listed in the < < WordPerfect for UNIX Telephone Directory > >. In the main WordPerfect 5.2 + SysAdmin Help Contents screen, choose 3..Info Sources, then view I. WordPerfect Telephone Directory.

| Language | Code |
|------------------------|------|
| Danish | dk |
| Dutch | nl |
| English-Afrikaans | ea |
| English-Australian | OZ |
| English-Canada | ce |
| English-United Kingdom | uk |
| English-United States | us |
| Finnish | su |
| French-Canada | cf |
| French-National | fr |
| German-National | de |
| German-Swiss | sd |
| Italian | it |
| Norwegian | no |
| Spanish-Catalan | ca |
| Spanish-National | es |
| | |

Language-Specific WordPerfect Files

When you install WordPerfect in multiple languages, several types of language-specific files are included in your WordPerfect installation.

- Language-specific data files are added to the wplib directory and shlib10 directory. Language-specific files are identified by <u>language code</u> extensions.
- Printer .all files are installed for the system default language. Language-specific printer drivers may include mappings for additional multinational characters and may have translated

- printer help information. You can add printer drivers for languages other than the system default language after you complete the initial installation.
- For the WordPerfect sample documents, ExpressDocs, graphics, Learn files, and macros, files in the system default language are installed directly into subdirectories of the WordPerfect installation directory. Files for other languages are placed in subdirectories identified by language codes.

Install Multiple Languages

WordPerfect is shipped with all available languages provided on the media. You may install as many languages as you want. Your License Agreement states how many concurrent sessions of WordPerfect you may run on your system. It does not matter which languages are in use. However, the more languages you install, the more disk space you need to hold the language files. You can install more languages at any time.

When you install multiple languages, you must select a system default language for WordPerfect. WordPerfect will start in the system default language if the user does not use a <u>language code</u> to start it in a different language.

Set a Personal Default Language

To run WordPerfect in a language other than the system default, do one of the following:

- Set your WPLANG environment variable to the appropriate two-letter language code to use a language other than the installed default on a regular basis.
- Start WordPerfect with the -lang startup option and the appropriate two-letter language code for occasional sessions of WordPerfect in a different language.

If setting WPLANG or using -lang does not start WordPerfect in the chosen language, you receive an error message (probably in English).

Set the WPLANG Environment Variable

For users who normally run WordPerfect in a language other than the system default, the WPLANG environment variable should be set for the desired language each time they log in. You can add the command(s) to set WPLANG to each user's .profile or .login file.

In the following commands, replace *langcode* with the two-letter code for the preferred language.

If you are using the C shell, add this command to each user's .profile or .login file to set the default language for the user:

setenv WPLANG langcode

If you are using the Bourne shell, add these commands:

WPLANG = *langcode* export WPLANG

Use the -lang Startup Option

Use the -lang option when you start WordPerfect to run the program in the language you specify.

Steps

To start WordPerfect using the -lang option on the command line,

- Type cd /WPdir/wpbin (where /WPdir is the full pathname of the WordPerfect installation directory), then press Enter.
- 2 Make sure the WPTERM52 environment variable is set properly for your terminal.
- Type ./wp -lang -langcode, then press Enter. 3

Using -lang overrides the default language for that session of WordPerfect. You can create a script or menu item for users to start WordPerfect in a particular language, or you can instruct users to provide the -lang startup option and language code when they start WordPerfect from the command line.

Mail Enable

Your users can send <u>e-mail</u> messages while using <u>WordPerfect</u>.

- UNIX mail is always available on the File menu in WordPerfect 5.2 + .
- If you have WP Office 3.1 on your system, you can set up your environment so that WordPerfect 5.2 + can send WP Office mail.
- If you have GroupWise 4.0 or 4.1 on your system, you can use UNIX mail to communicate with GroupWise users. WordPerfect 5.2 + cannot send GroupWise mail.

Use UNIX Mail in WordPerfect 5.2+

UNIX mail is always available in WordPerfect.

Steps

To send mail,

1 Press **Shell**, then press **4** for UNIX Mail.

If you are editing a WordPerfect document, it is automatically provided as an attachment. If the version on your screen has not yet been saved, you are prompted for whether you want to save the file and attach it to your message.

2 Press 2 to move to the To: field, type one or more UNIX login names or groups, then press Enter.

HINT: Add Carbon Copy or Blind Copy recipients, if needed.

- 3 Press 5 to move to the Subject: field, type the subject for the message, then press Enter.
- 4 Press 7 to move to the Message field, type your message, then press

If you block text in your document before pressing Shell, that text is automatically provided in the Message field.

Press **Send** to send the message with the WordPerfect document attached.

Build User Lists for UNIX Mail

You can provide a default list of login names and/or groups for WordPerfect users to select from.

Steps

Log in as the primary WordPerfect administrator or with superuser permissions.

- 2 Create a UNIX text file of names or groups, with one name or group per line.
- 3 For login names, name the file .wpuxml.ulist. or... For groups, name the file .wpuxml.glist.
- Place the file(s) in the WordPerfect wplib directory.

If users add other login names or groups to the list, their personalized copies of the .wpuxml.ulist and .wpuxml.glist files are stored in their home directories.

Mail WordPerfect Documents

You can attach WordPerfect files to UNIX mail messages. However, when a WordPerfect file arrives in the receiver's UNIX mailbox, it has been encoded (using the UNIX uuencode process) into ASCII format. The receiver must decode the file using the UNIX uudecode command before it can be retrieved into WordPerfect.

Steps

To decode a WordPerfect file that has been received as part of a UNIX mail message,

Retrieve the file containing the UNIX mail message into a UNIX text editor, such as vi.

> Typically, a UNIX mail message includes lines to indicate where the attached file begins and ends in the ASCII encoded version. For example:

```
---- Beginning of file attachment, Cut Here -----
begin 644 annual.rpt
< encoded file >
----- End of attachment, Cut Here -----
```

The **begin** line includes the filename and permissions of the file that will be created when you decode it. If you attach multiple WordPerfect files to the same UNIX mail message, all the WordPerfect files are combined into the same message file.

- Cut the attachment from the beginning of the **begin** line through the end of the end line, then save it as a separate file.
- At the system prompt, type uudecode filename (where filename is the name of the file where you saved the cut attachment). This re-creates the WordPerfect document, complete with all the original WordPerfect codes, ready to be retrieved into WordPerfect.

Customize UNIX Mail

When a user sends <u>UNIX</u> mail from WordPerfect, WordPerfect executes the wpuxml.exec script in the wplib directory. This file looks similar to the following example:

This is a basic UNIX mail command. You can edit the wpuxml.exec file so that it executes any other valid mail command. Users can also create personal wpuxml.exc files in their home directories. See your UNIX operating system documentation or man pages for more information on the UNIX mail command.

Enable Mail for WP Office 3.1

To enable WordPerfect to send WP Office mail, you must set a mail-enable environment variable with the full pathname of the WP Office Mail executable file. The WordPerfect 5.2 + mail-enable environment variable for WP Office 3.1 is WPMAILENABLE.

In the C shell, you would use the command:

setenv WPMAILENABLE /WPOFdir/ofbin/ml

In the Bourne shell, you would use the commands:

WPMAILENABLE = /WPOFdir/ofbin/ml export WPMAILENABLE

Build User Lists for WP Office 3.1 Mail

You can build user lists manually after choosing WP Office in WordPerfect, or you can build a master user list using the wpu utility, which is located in the wpbin directory.

The wpu utility stores the master user list in the .wp51ml.ulist file in the wplib directory. You can also create a master group list, stored in the .wp51ml.glist file in the wplib directory.

File Locking

File locking is a mechanism used by the UNIX operating system to ensure that only one user can open a file with write permission at any time. File locking prevents multiple users from modifying the same file simultaneously and overwriting each other's changes.

WordPerfect makes use of UNIX file locking to ensure that two users cannot edit the same document at the same time. In certain, specialized configurations, such as cross-platform mounting or mounting between systems on different versions of the same operating system, file locking may not work as intended. Therefore, WordPerfect and two of its supporting programs can be run with file locking turned off.

> IMPORTANT: Turning file locking off can be a useful workaround when file locking is not working as intended. However, it does leave files vulnerable to modification by multiple users at the same time and should be used with caution. The preferable solution is to resolve the UNIX operating system incompatibility causing the file-locking problems.

WordPerfect

Steps

To turn off file locking in WordPerfect,

- 1 Log in as a WordPerfect administrator.
- 2 Change to the WordPerfect wpbin directory.
- 3 Make sure the WPTERM52 environment variable is set properly for your terminal.
- Type ./wp -adm, then press Enter to start WordPerfect as a WordPerfect administrator.
- 5 Press Setup.
- 6 Press 7 for Files Locking Disabled, then press y for Yes.
- Press **0** (zero) to return to the WordPerfect document screen.

Print Server (wpexc60)

Steps

To turn off file locking for the Print Server,

- 1 Change to the WordPerfect shbin10 directory.
- Type ./wpexc60 -f, then press Enter to start the Print Server with file 2 locking disabled.

HINT: To enable WordPerfect to start the Print Server with file locking always turned off, rename the wpexc60 executable to wpexc60.orig, then create a script file named wpexc60 that contains the line wpexc60.orig -f.

Printer Destination Program (wpdest)

Steps

To turn off file locking for the Printer Destination program,

- Log in as a WordPerfect administrator. 1
- Change to the WordPerfect shbin10 directory.
- Make sure the WPTERM52 environment variable is set properly for your terminal.
- Type ./wpdest -F, then press Enter to start the Printer Destination program with file locking disabled.

HINT: To enable WordPerfect to start the Printer Destination program with file locking turned off, rename the wpdest executable to wpdest.orig, then create a script file named wpdest that contains the line wpdest.orig -F.

Remote Mounting

Users who run WordPerfect across a mount should be aware of the following limitations of a mounted configuration:

- You must use a local shared temporary directory in order to print from WordPerfect. If the local workstation has a /tmp directory, the default shared temporary directory (/tmp/wpchostname) works automatically. If the workstation does not have a /tmp directory, you must set the SHTMP environment variable to the full pathname of a local directory to use as the shared temporary directory. Printing may not work reliably if WordPerfect writes temporary files across a mount.
- You cannot create shared printers across a read-only mount, because information must be written to files in the WordPerfect subdirectories.
- Even across a read/write mount, creating shared printers or performing other activities that modify WordPerfect program files is not recommended, because potential file-locking problems on some versions of UNIX could damage the files where WordPerfect information is stored.

Terminal Definition Program

The Terminal Definition program (wpterm) lets you customize a terminal driver for the unique needs of your system. The WordPerfect media contains terminal drivers for all supported terminals. You can find a list of supported terminals in the README.trs file in the WordPerfect wpbin directory. If you have an unsupported terminal, or if you are using a supported terminal in an unsupported configuration, use the Terminal Definition program to modify a terminal driver to meet your specific needs.

Terminal drivers are stored in the WordPerfect shlib10 directory. As you selected each terminal during installation, the corresponding terminal resource (.trs) file was installed. These terminal drivers provide the codes to enable the WordPerfect to communicate successfully with your particular terminal.

The Terminal Definition program lets you do the following:

- Define terminal screen attributes such as underline, bold, blink, and reverse video
- Map WordPerfect functions to the function keys of the
- Define the character sets and extended characters displayed by the terminal and map these to the character sets used by WordPerfect
- Define terminal-specific hardware considerations such as the size of the screen, cursor motion on the screen, text insertion and deletion, and scrolling
- Define values to initialize the terminal for WordPerfect and to restore the terminal to its original state after you exit WordPerfect

Extensive changes to a terminal driver should not be attempted without substantial terminal experience. For those with a strong technical background, the wpterm.man file in the WordPerfect shlib10 directory documents the Terminal Definition program in detail.

For those who want to make simple modifications to a terminal driver, this Topic explains how to run the Terminal Definition program and presents some basic applications.

Start the Terminal Definition Program

Before starting the Terminal Definition program, you should make a backup copy of the terminal driver (.trs file) you want to edit. Make changes to the backup copy and test it before replacing the original file with the edited version. The name of the backup file must still include the .trs extension.

To use the Terminal Definition program,

- 1 Log in as the primary WordPerfect administrator.
- 2 Verify that the WPTERM52 setting is correct.

- Change to the WordPerfect shlib10 directory where the .trs files are located. You must be in this directory in order for the Terminal Definition program to find the terminal drivers.
- Make sure that your path includes the WordPerfect shbin10 directory (where the wpterm executable is located).
- Type wpterm, then press Enter.

If "command not found" appears when you try to run the Terminal Definition program, it means that the WordPerfect shlib10 directory is not on your path. Another way to execute the Terminal Definition program from the WordPerfect shlib10 directory is to include the full pathname of wpterm when you execute it (such as /usr/wp/shbin10/wpterm).

The main Terminal Definition program screen is displayed. It lists all installed terminal drivers. The Terminal Definition program only looks in the current directory for .trs files, which is why you must move to the WordPerfect shlib10 directory before executing it. You are now ready to customize the terminal driver.

Change Terminal Modes Automatically

Some terminals can function in more than one mode. For example, a single terminal might have a VT100 mode, a VT220 mode, and a Wyse 60 mode. For such a terminal, your choice of a WordPerfect terminal driver depends on these things:

- The mode you plan on having the terminal in
- The WordPerfect terminal driver that offers the most comfortable keyboard layout

If you want to have the terminal in one mode for WordPerfect and in another mode for your other applications, you can add automatic mode changing to the WordPerfect terminal driver. Before you can modify the driver, you must find out what codes put the terminal into each of its modes. You can usually find this information in the manuals included with the terminal.

For this example, suppose you have an application that requires your terminal to be in VT100 mode, but you would prefer the 12 function key layout of the Wyse 60 terminal driver while working in WordPerfect.

Steps

Once you know the codes for changing between VT100 and Wyse 60 mode,

- Start the Terminal Definition program as explained above.
- Move the bar cursor to the terminal driver you want to edit. (In the example introduced above, it would be a Wyse 60 driver.)
- Press Enter to edit the driver. A menu of options appears at the bottom of the screen.
- Press 4 for Terminal Control Strings.

You see a list of various types of commands that can be given to a terminal. The first one, String to Initialize the Terminal, is

highlighted. At the bottom, in the Sequence field, you see the actual codes sent to the terminal to give it that command.

- With String to Initialize the Terminal highlighted, press 1 for Edit Sequence to move the cursor down to the Sequence field. Typically some codes are already in the Sequence field.
- With the cursor at the very beginning of the Sequence field, type the code that puts your terminal into the mode you want to use in WordPerfect. (In the example introduced above, it would be the code to put the terminal into Wyse 60 mode.)

HINT: While typing, be careful not to change or delete any existing codes. If you need to start over, press Cancel to leave the field without saving changes. Then go back into the field and try again.

When you have finished typing the code, press **Enter** to leave the field.

HINT: If an error message appears when you try to leave the Sequence field, it means that you have added a code that conflicts with something already in use in the driver. Verify the code and correct it as needed until you can leave the Sequence field.

- Press Down Arrow to move the highlight to String to Reset the Terminal, then press 1 for Edit Sequence to move the cursor down to the Sequence field.
- Press Home, Home, Right Arrow to move the cursor to the very end of the code sequence.
- With the cursor at the very end of the Sequence field, type the code 10 that puts your terminal into the mode required by your other application. (In the example introduced above, it would be the code to put the terminal into VT100 mode.)
- When you have finished typing the code, press Enter to leave the 11 field.
- 12 Press Exit twice. You are asked whether or not you want to save the
- Press y for Yes to save the file. Press y for Yes again to save it under the same filename (thus overwriting the original terminal driver). Or press n for No (to preserve the original driver), type a new name for the modified terminal driver (including the .trs extension), then press Enter to save the new terminal driver under a new filename.

or... Press n for No to discard any changes made to the terminal driver.

You return to the list of terminals. You can edit another terminal driver or, if you are finished editing terminal drivers,

Press Exit to leave the Terminal Definition program.

You return to the system prompt. Test the changes to the terminal driver by setting your WPTERM52 environment variable to the modified .trs filename

and going into WordPerfect. (The .trs extension is not included when setting your WPTERM52 variable.) If the terminal changes modes properly, replace the standard version of the .trs file with the modified version, making mode changing available to all users on your system.

> IMPORTANT: You should make a backup copy of the modified terminal driver in case the customized file is accidently deleted or otherwise damaged.

If the terminal fails to change modes properly, compare the mode change codes with those listed in the manual accompanying your terminal. For more information on mode changing, consult the terminal manufacturer.

Remap Function Keys

WordPerfect terminal drivers are written for the keyboard in its default state. If the keyboard sends codes other than those expected by the terminal driver, you will not get the expected WordPerfect feature when you press a key. For WordPerfect to respond as expected, the keyboard must send the codes for which the WordPerfect terminal driver is programmed.

When WordPerfect does not respond correctly to the codes sent by the keyboard, solutions to the problem include:

- Set the terminal back to its default state so it is sending the codes that the WordPerfect terminal driver is programmed to accept.
- Modify the WordPerfect terminal driver so it is programmed to respond to the codes the terminal is sending.

The first solution, setting the terminal back to its default state, is preferred. The manual included with the terminal should have instructions to help you do this.

The second solution, modifying the WordPerfect terminal driver, is necessary when another application on your system requires a specially mapped keyboard. To modify the WordPerfect driver, you must first determine exactly what codes the terminal is sending and then add those codes to the WordPerfect terminal driver.

WordPerfect includes the wpkey utility, which reads each keypress and displays the codes being sent. You can use wpkey in three different modes:

Used without options, wpkey displays the codes returned by keys at the system level. These codes are totally unaffected by your WordPerfect installation.

wpkey -n

The -n option causes the terminal to undergo the same initialization that takes place when you start WordPerfect. Sometimes the initialization process remaps some keys on the keyboard.

wpkey -f

The -f option displays the actual WordPerfect feature name, instead of a numeric representation of the code sent by the key. This helps you verify the accuracy of a terminal definition you have created or edited.

When you are gathering codes to add to a WordPerfect terminal driver, you want to see what the key returns with your WPTERM52 setting in effect, so you know what the WordPerfect initialization sequence does to the terminal.

Steps

To run wpkey to gather information for remapping the keyboard,

- Make sure your WPTERM52 environment variable is set to the terminal driver you will be modifying.
- Change to the WordPerfect shbin10 directory.
- Type ./wpkey -n, then press Enter. A brief explanation of how to use wpkey appears at the top of the screen.
- Press the key for which you want information.

The wpkey utility displays code(s) returned from the keypress in three equivalent representations. Depending on your terminal, if you press the Enter key, wpkey might display the following:

$$val = 0xa$$
 [10] Ctrl-J

The first column displays the information in hexadecimal format (base 16). In the second column, the same information is displayed in decimal format (the way you might look up a character in a typical ASCII chart). The third column displays the same information as a character (if it is displayable) or as a control sequence (if it is not displayable).

In this particular example, the Enter key is sending the value Ctrl-J (which can be interpreted as 0xa in hexadecimal format or as [10] in decimal format). The "0x" indicates a hex value and the square brackets "[]" indicate a decimal value.

In the Terminal Definition program, any keystroke sequence requiring values less than 32 should be entered as a decimal value enclosed in square brackets "[]" (for example, ^A (Ctrl-A) would be entered as [1]).

- Press keys and write down their codes for all keys you want to remap.
- Once you have gathered all the codes you need, press + (plus) three times to exit the wpkey utility.

You return to the system prompt. Follow these steps to modify the WordPerfect terminal driver.

Steps

- Start the Terminal Definition program as explained above.
- Move the bar cursor to the terminal driver you want to edit.

- 3 Press Enter to edit the driver. A menu of options appears at the bottom of the screen.
- Press 8 for WordPerfect Functions.

An alphabetical list of WordPerfect functions appears. You will also find unfamiliar items on the list; these items are used internally by WordPerfect.

- Choose a WordPerfect feature to remap (for example, Help).
- 6 Press n for Name Search, then type the name of the feature. The list shifts until the highlight rests on the feature you typed.
- 7 Press **Enter** to get out of Name Search mode.

At the bottom of the screen, you see the keystroke currently used for this feature and the codes currently expected by the terminal driver to execute this feature. To change the codes,

- Press 3 for Edit Sequence from Terminal. The cursor moves down into the Sequence from Terminal field, where the codes are displayed.
- Type the codes sent by the terminal when you press the key for the WordPerfect feature you chose.

HINT: Enclose any decimal values less than 32 in square brackets, for example [10]. For values 32 and above, you can type the character representation of the code or the decimal value in square brackets. If you type a decimal value of 32 or above in square brackets, the Terminal Definition program will automatically convert it to its character equivalent.

When you have typed the code, press **Enter** to exit the Sequence from 10 Terminal field.

HINT: If you receive an error message at the bottom of the screen and cannot leave the field, it means you have given a code already used somewhere else in the terminal driver. The message indicates which WordPerfect feature is already using that code. Each code can only be used in one place in the driver. If the code you type conflicts, you will have to delete the code from its current location so you can use it in a new location. Be cautious when making such changes.

- Once you have provided a code that the Terminal Definition program 11 accepts and you have exited the Sequence from Terminal field, repeat steps 6 through 10 for every WordPerfect feature you want to remap.
- 12 When you are finished remapping keys, press Exit twice. You are asked whether or not you want to save the file.
- Press y for Yes to save the file. Press y for Yes again to save it under the same filename (thus overwriting the original terminal driver). Or press n for No (to preserve the original driver), type a new name for the modified terminal driver (including the .trs extension), then press Enter to save the new terminal driver under a new filename.

or... Press n for No to discard any changes made to the terminal driver.

You return to the list of terminals. You can edit another terminal driver or, if you are finished editing terminal drivers,

Press Exit to leave the Terminal Definition program.

You return to the system prompt. Test the changes to the terminal driver by setting your WPTERM52 environment variable to the modified .trs filename and starting WordPerfect. (The .trs extension is not included when setting your WPTERM52 variable.) If the function keys produce the expected WordPerfect features, replace the standard version of the .trs file with the modified version, making the keymappings available to all users on your system.

> IMPORTANT: You should make a backup copy of the modified terminal driver in case the customized file is accidently deleted or otherwise damaged.

If the modified function keys do not produce the expected WordPerfect features, verify the codes returned by the keys using wpkey with the -n option. For more information on terminal codes, consult the terminal manufacturer.

Document Changes to a Terminal Driver

If you make substantial changes to a terminal driver, you should document those changes within the driver itself. This helps you and others remember what modifications were made.

Steps

To document changes to a terminal driver,

- If you are still in the Terminal Definition program after making changes to a driver, press 8 for WordPerfect Functions from the main Terminal Definition program menu at the bottom of the screen. or... If you want to document a previously modified driver, go into the Terminal Definition program, move the bar cursor to the modified driver, press Enter to edit the driver, then press 8 for WordPerfect Functions.
- Move the bar cursor down to Comments About the Terminal, then press 2 for Edit Help Keystrokes. You may see some information already included about the terminal driver.
- Move the cursor to the end of any existing text, then type in a description of the changes you have made to the driver. You might want to include your name and the date as well.
- 4 When you are finished documenting your changes, press Exit three times. You are asked if you want to save the file.
- Press y for Yes to save the file. Press y for Yes again to save it under the same filename (thus overwriting the original terminal driver). Or press n for No (to preserve the original driver), type a new name for the modified terminal driver (including the .trs

extension), then press Enter to save the new terminal driver under a new filename.

or... Press n for No to discard any changes made to the terminal driver.

You return to the list of terminals. You can edit another terminal driver or, if you are finished editing terminal drivers,

6 Press Exit to leave the Terminal Definition program.

You return to the system prompt. You should make a backup copy of the modified terminal driver in case the customized file is accidently deleted or otherwise damaged.

Accounting Utility

When activated, the Accounting utility tracks the use of WordPerfect 5.2 + . It records statistics such as keystrokes, CPU time used, total time used, and number of pages printed. Though WordPerfect includes a macro series to help you compile these statistics, you can also customize the statistics to meet your needs for system and project tracking.

This topic provides guidelines for using the Accounting utility, describes the format of the statistics file, and suggests applications you might create.

Starting the Accounting Utility

The Accounting utility is started using the startup options -a, -g, and -u with the wp command as you start WordPerfect from the system prompt. To use the Accounting utility, enter these options in the following form:

wp -a pathname -g groupname -u username

Other WordPerfect startup options can also be used in this command string.

The accounting options and their parameters are described below.

-a *pathname*

The -a startup option turns on the Accounting utility until you exit WordPerfect. WordPerfect creates the statistics file with the filename and path you specify.

The pathname parameter is mandatory and has no default value. If you do not specify a full pathname with -a, you cannot enter WordPerfect.

The pathname parameter lets you create several statistics files to be used in separate statistical reports.

-g groupname

The -g startup option allows you to specify a name under which an editing session will be logged. For example, if you are tracking the hours spent creating documents for two law firms, then lawfirm1 and lawfirm2 could be different group names. The group name is a name you choose to categorize records, and is not related to UNIX system groups. However, the default for -g is the UNIX group.

-u *username*

The -u startup option allows you to specify the username that the Accounting utility will use in its records. If you do not use -u, the UNIX username is the default.

Each user starting a session to be logged must enter the accounting options with wp when starting WordPerfect. If your system is set up so that WordPerfect is started from a menu, you can add the accounting options to the wp command used in the menu setup. It is also possible, on some

systems, to use an alias command so that the user does not have to enter all the accounting options. For example, "wp" could be the alias for wp plus all the accounting options. For information about setting up an alias command or a menu system, see your UNIX system documentation.

Understanding the Statistics File

The accounting statistics are saved in a file with the full pathname you specified with -a.

The statistics file is in WordPerfect secondary merge format. In a secondary merge file, each item of information is called a data field, and each group of data fields is called a record. Fields and records are separated by codes. See Merge in the WordPerfect 5.1 Reference for more information.

Each time someone using the Accounting utility saves or exits a file, an additional record is appended to the statistics file. The statistics file may therefore become quite large unless you use and then delete the collected statistics regularly.

Each record contains data fields in the order shown below. The {END FIELD} is the code that separates fields. Some of the data fields are clarified in the paragraphs following the list.

> Filename {END FIELD} Date{END FIELD} Username{END FIELD} User group{END FIELD} Number of keystrokes{END FIELD} Total elapsed time in hours, minutes, seconds, and hundredths of a second{END FIELD} CPU elapsed time in hours, minutes, seconds, and hundredths of a second{END FIELD} Total elapsed time in seconds {END FIELD} CPU elapsed time in seconds{END FIELD} Number of pages printed {END FIELD} Beginning document size in bytes{END FIELD} Ending document size in bytes{END FIELD} Date in Sort format{END FIELD} {END RECORD}

The total elapsed time refers to one of two cases: (1) the time from when the document was retrieved to the time it was first saved; or (2) the time from the second most recent save to the most recent save. For example, if a user retrieved a file at 5:45 and then saved it at 6:15, the total elapsed time would be 30 minutes (1800 seconds). If the user then saved the file again at 6:25, an additional record would be created in which the total elapsed time was 10 minutes (600 seconds).

In times showing hours, minutes, seconds, and hundredths of a second, time units are separated by colons. For example, 05:59:24.98 means 5 hours, 59 minutes, 24 seconds, and 98 hundredths of a second.

The times displayed only in seconds are in decimal form, showing seconds and hundredths of a second. For example, 45.89 means 45 seconds and 89 hundredths of a second.

The date in Sort format shows the date as a number, in the order of year, month, day, hour, and minutes. Hours are displayed using a 24-hour clock. For example, the number 199504291645 would mean 1995, April 29, 4:45 p.m.

Using the Accounting Statistics

You can use the Accounting statistics in many kinds of applications. The list below suggests just a few:

- You want to lease CPU time to individuals or groups. The Accounting utility will record the amount of CPU time used by a particular user or group of users.
- You own a business that allows people to use your system and printers for a fee. The Accounting feature will keep track of the total time used, as well as the number of pages printed by
- You manage a group that creates documents for law firms. The Accounting feature will track the amount of time your group spends creating each legal document.

WordPerfect includes a series of macros and other files that will create statistical reports for you. This macro series is started by the stats.wpm macro. You could also create your own macro or macro series to make a report customized to your needs. The paragraphs below introduce you to using stats.wpm and provide hints for creating your own macros.

stats.wpm Macro

For convenience in extracting and sorting data from the accounting resource file, a special macro (stats.wpm) is included with WordPerfect. This macro enables you to do the following:

- Sort statistics by username, group name, or filename
- Create and edit the format in which statistics are displayed and
- Calculate totals for specific or multiple documents

The stats.wpm macro creates and then deletes one file: rec.sf. If this file already exists, it will be deleted.

Steps

To start the macro,

- Press Macro in WordPerfect 5.2 + .
- 2 Type /WPdir/wplrn/stats (where /WPdir is the full pathname of the WordPerfect installation directory), then press Enter.

The stats wpm macro starts and the main Accounting menu appears.

- 3 Press 1 for Sort Options.
- Choose a Sort option, then enter the sort criteria (see Sort Options below).

You can extract and sort data that matches more than one field by entering sort criteria for each field you want to extract. After you have specified the sort criteria,

Press 5 for Sort Records, type the full pathname of the accounting resource file, then press Enter.

The records are extracted from the accounting resource file, and then sorted and placed in a temporary WordPerfect file (rec.sf). The cursor then returns to the main Accounting utility screen.

Select a Display option (see *Format Options* below).

The compiled statistics appear on the screen in the format you specified, and the stats.wpm macro terminates. The compiled statistics output file is a standard WordPerfect file that you can edit, print, save, and/or delete like any WordPerfect document.

> HINT: When accessing any of the Accounting utility menus, if you make a mistake and select the wrong option, you can press Cancel (and type y for Yes if the "Cancel changes? Y/N" prompt appears) to cancel the selection.

Sort Options

The Sort options described below enable you to specify one or more ways in which to extract and sort records from the resource file.

Username

To extract and sort records created by a specific user, select this option and enter the username. Only those records containing the specified username will appear in the final output.

Group Name

When you select this option, a macro will extract and sort only the records that include the specified group name.

Date

When you select this option, you can enter a date or a logical symbol (=, <>, >, <, >=, <=) to specify a date or range for the extracted records. For example, to extract and sort only the statistics compiled on or before January 17, 1995, enter 19950117 at the "Enter Date to sort by:" prompt, and enter < = at the "Enter Logical Symbol:" prompt. The default logical operator is > = (all records since the date and time you specify).

Filename

Select this option to extract and sort only those records with the filename you enter. You will be prompted for a filename. Enter the filename you wish to search for. For example, if you wanted to see who used the filename "test5," you would enter test5 at the prompt. The records that contain this file would be preserved and the others discarded during the sort.

Format Options

Several options are available for defining the format you want to use for the statistics output file. The following default formats are provided for your convenience, and can be edited, displayed, or viewed by selecting the corresponding options from the Accounting utility menu.

Full Format

By default, this format includes the first 12 fields for which accounting statistics are compiled.

Brief Format

The default for this format includes the merge codes to display only the filename, username, and revision date. The {PAGE OFF} code is also included to cause records to display in consecutive order with no page breaks between records.

Other Format

This is a user-defined format, and can be used to create your own form for displaying the compiled statistics.

Total Format

This format displays the combined totals for all records that match the sort criteria you specify in the Sort Options menu. The default fields displayed are keystrokes, elapsed time, CPU time, number of pages printed, and beginning and ending document length.

Creating and Editing Formats

The options on the Create/Edit Formats menu allow you to specify how the records should be formatted when the stats.wpm macro generates the statistics output file. Using the available options, you can create, edit, or view the titles and/or forms that will be used for displaying the compiled statistics in Full, Brief, Other, or Totals Format.

Considerations and Limitations

When using the Accounting utility, you should be aware of the following considerations and/or limitations:

- Statistics are not recorded when endnotes are printed alone.
- Because the statistics data is continually being appended to the Accounting Resource file, this file will continually increase in size. You should check this file periodically and either delete it or rename it for archiving after billing is complete.

Creating Other Applications

If the reports created by stats.wpm do not meet your needs, you can use WordPerfect features to create your own applications. The raw statistics in the Accounting files await your creativity. In addition, you can edit the statistic macros to suit your needs.

For creating applications, you can use the WordPerfect Macro, Merge, Math, and Sort features. Use the Macro feature to record a series of keystrokes or tasks and then have WordPerfect carry out these tasks automatically. Use Merge to call the data fields from a statistics file into a Math document. Use Math to manipulate numbers, and use Sort to sort words, dates, or numbers. The WordPerfect 5.1 Reference describes what these features will do, and the WordPerfect 5.1 Workbook provides examples of using them.

WordPerfect 6.0 (xwp) vs. WordPerfect 5.2 + (wp)

WordPerfect 6.0 (xwp), located in the WordPerfect wpbin directory if you chose to install it along with WordPerfect 5.2 + (wp), is designed for word processing in graphical user interface (GUI) environments.

If users on your system will use WordPerfect 6.0 as well as WordPerfect 5.2 +, you should be aware of the following:

- Although WordPerfect 5.2 + and 6.0 can use the same printer destinations, printers for the two products must be set up separately. WordPerfect 5.2 + uses the same type of printer drivers as 5.1, while WordPerfect 6.0 uses a newer version of printer drivers.
- WordPerfect 5.2 + and 6.0 use the same Print Server (wpexc60). Therefore, print jobs from both products are listed in Printer Control.
- WordPerfect 5.2 + and 6.0 use the same License Manager. Therefore, the number of user sessions for which you are licensed includes concurrent processes for both programs.
- If you retrieve a WordPerfect 6.0 document into WordPerfect 5.2 +, any WordPerfect 6.0 codes not used by WordPerfect 5.2 + are stripped out. However, you can retrieve a WordPerfect 5.2 + document into WordPerfect 6.0 without any loss of codes.
- WordPerfect 5.2 + and 6.0 use different versions of macros. Therefore, you cannot run WordPerfect 5.2 + macros in WordPerfect 6.0, nor can you run WordPerfect 6.0 macros in WordPerfect 5.2 + .
- WordPerfect 5.2 + and 6.0 use different formats of WordPerfect Graphics (.wpg) files. WordPerfect 5.2 + includes sample graphics in 1.0 .wpg format. WordPerfect 6.0 includes sample graphics is 2.0 .wpg format and, using its WP Draw feature, lets you create and edit new .wpg graphics. You can use both 1.0 and 2.0 .wpg graphics file with WordPerfect 5.2 + .

WordPerfect Error Messages

No .wpt files found in the ExpressDocs file location (error)

If you chose a minimum or medium installation, the ExpressDocs were not installed. To use ExpressDocs, you must choose a full installation of WordPerfect.

This file cannot be converted to a WPG 2.0 image (error)

If you chose a minimum installation, the file conversion program (cvt60) was not installed. Without cvt60, you cannot retrieve non-WordPerfect 6.0/5.2+ graphics. To be able to convert graphics, you must do a medium or full installation of WordPerfect.

Unable to locate the file conversion program (error)

If you chose a minimum installation, the file conversion program (cvt60) was not installed. Without cvt60, you cannot retrieve non-WordPerfect 6.0/5.2 + documents. To be able to convert documents, you must do a medium or full installation of WordPerfect.

2. License Manager

License Manager

The number of users that can run concurrent sessions of WordPerfect 5.2 + and/or 6.0 is controlled by FLEXIm, a third-party application software package supplied by Highland Software, Inc. Some background information can help you keep the License Manager running smoothly for WordPerfect users.

The License Manager can control the number of user sessions across networks using either of two Internet protocols: TCP and UDP.

TCP

Internet Transmission Control Protocol (TCP) is a virtual circuit protocol that provides reliable, flow-controlled, two-way data transmission.

UDP

Internet User Datagram Protocol (UDP) is an alternative to TCP. UDP requires a small, fixed number of sockets, which can be preferable on systems with limited resources.

TCP and UDP have no discernable differences in speed.

IMPORTANT: If your system does not use any Internet Protocol (IP), you cannot use the License Manager on your system.

The purpose of the License Manager is to restrict the use of the WordPerfect software to the number of user sessions specified in the License Agreement that accompanied your copy (or copies) of the software. To better understand the License Manager, you need to be familiar with the following terms:

license

A license is the right to use an application. Users check licensed sessions out from the License Manager in much the same way one checks books out of the library. When licensed sessions are "in," they are available for use, and when they are "checked out," people are already using them.

daemon

A daemon is a program, typically started by root, that runs unattended to perform a standard service. Daemon processes generally provide services that must be available at all times to all users.

vendor daemon (wplmd60)

The vendor daemon dispenses licensed sessions of the requested program. It is configured by WordPerfect to contain WordPerfect-specific encryption codes. The WordPerfect vendor daemon (wplmd60) is executed from the WordPerfect shbin10 directory and monitors both WordPerfect 5.2 + and WordPerfect 6.0.

license daemon (lmgrd)

The license daemon sends client processes to the correct vendor daemon on the correct system. The same license daemon (lmgrd) is used by all applications from all vendors that use FLEXIm, because this daemon neither performs vendor-specific encryption nor dispenses licensed sessions of applications.

license file (license.dat)

The license.dat file is an end user-specific file that contains descriptions of the servers that can run the license and vendor daemons and the restrictions for all the licensed applications. The license.dat file for WordPerfect is found in the WordPerfect shlib10 directory. It is also possible to have a global license.dat file containing the information for multiple applications from all vendors that use FLEXIm.

If you are logged in as a superuser when you install WordPerfect, the Installation program automatically creates the initial license.dat file and starts the License Manager. If you have write permissions, the Installation program can add the command to start the License Manager to the UNIX system boot file (such as /etc/rc or /etc/rc.local) so that the License Manager starts automatically every time you reboot your system. If you need to add the command after installation, follow the instructions in the README.install file in the WordPerfect wpbin directory.

The License Manager is composed of four parts that you need to understand in order to handle changes and problems that might arise as the License Manager monitors WordPerfect users:

> lmgrd and wplmd60 License and vendor daemons wplicense License Manager utility

license.dat file License file

license.opt file License options file

To perform most License Manager functions, such as starting and stopping the license daemons and editing the license.dat file, you must be a superuser or a member of the <u>lmadmin group</u>. Being a WordPerfect administrator does not grant License Manager privileges, because the FLEXIm License Manager may be monitoring other products in addition to WordPerfect. If you do not know how to create a group, refer to your UNIX operating system documentation.

Choose from the following topics for more information about the License Manager:

```
< < License File > >
```

< < License Manager Utility > >

< < License Options File > >

< < License Manager Error Messages > >

< < License Manager Troubleshooting > >

License File

During installation, a license.dat file is created in the WordPerfect shlib10 directory. When you start WordPerfect, it reads the license.dat file to determine certain information about your system, including which host system(s) on the network are the license servers.

A license dat file for a 20-license version, running on a system where the name of the host where WordPerfect is installed is marketing, would look similar to the following example:

```
SERVER marketing ANY 7685
DAEMON wplmd60 /apps/wp60/shbin10/wplmd60...
                                 ... /apps/wp60/shlib10/license.opt
FEATURE wp60 wplmd60 6.0 01jan0 20...
                                 ... 8FA01A293EF3721 "license#"
```

WordPerfect 5.2 + and WordPerfect 6.0 are licensed and monitored together.

SERVER line

The first item on the SERVER line in the license.dat file specifies the name of the host system where WordPerfect is installed (in the example above, the hostname is marketing). The second item, ANY, enables WordPerfect to run on the specified host system without providing a unique hostid. The final item, 7685, is the default TCP/IP port number.

In most situations, one license server is sufficient. However, you can define three license servers in case the primary license server goes down.

A license.dat file with three SERVER lines would appear as follows:

```
SERVER marketing ANY 7685
SERVER sales ANY 7685
SERVER corporate ANY 7685
DAEMON wplmd60 /apps/wp60/shbin10/wplmd60...
                                ... /apps/wp60/shlib10/license.opt
FEATURE wp60 wplmd60 6.0 01jan0 20...
                                ... 8FA01A293EF3721 "license#"
```

DAEMON line

The DAEMON line in the license.dat file specifies the WordPerfect-specific vendor daemon (wplmd60) and the path to this daemon. FLEXIm starts the wplmd60 daemon, whose executable is installed in the WordPerfect shbin10 directory. The DAEMON line also contains the full pathname of the license options file (license.opt). WordPerfect 5.2 + and WordPerfect 6.0 are licensed and monitored together.

FEATURE line

The first item in the FEATURE line in the license.dat file specifies the application you are running. WordPerfect uses one FEATURE line labeled wp60, whether you are running both WordPerfect 6.0 and WordPerfect 5.2 + or running either product separately.

The next item in the FEATURE line is the vendor daemon name (wplmd60), followed by the version of WordPerfect, the expiration date of the program copy you are running, and the number of user sessions you are licensed for. The date in this example (01Jan0) represents a non-expiring copy.

The next item, a string of numbers and characters, is a random number (in hexadecimal format) representing an encryption code assembled from the information you provide during installation or when running the License Manager utility (wplicense). Finally, "license#" is your WordPerfect license number; it must be surrounded by double quote marks.

Edit the license.dat File Using a UNIX Text Editor

Four fields in the license.dat file can be edited directly using a UNIX text editor such as vi.

- The hostname on the **SERVER** line
- The port number on the SERVER line
- The pathname of the vendor daemon on the DAEMON line
- The pathname of the <u>license options file</u> on the DAEMON line

You can change other information in the license.dat file only by running the <u>License Manager utility</u>. See < < Edit the License File > >; in the main WordPerfect 5.2 + SysAdmin Help Contents screen, choose 1..How_Do_I, choose 2..Manage_WP_5.2+, then choose 2..Licensing.

License Manager Utility

The two License Manager daemons, <u>lmgrd</u> and <u>wplmd60</u>, must be running before users can run WordPerfect. Use the License Manager utility for all License Manager maintenance tasks.

As system administrator, you can create a group called **Imadmin** in the UNIX /etc/group file to designate users other than a superuser to have License Manager privileges. Being a WordPerfect administrator does not grant License Manager privileges, because the FLEXIm License Manager may be monitoring other products in addition to WordPerfect. If you do not know how to create a group, refer to your UNIX operating system documentation.

License Manager Startup Options

The License Manager utility uses the following startup options:

| Option | Explanation |
|---------|--|
| _ | Display License Manager status |
| -e | Edit the <u>license.dat file</u> |
| -k | Stop (kill) the License Manager |
| -merge | Combine product-specific FLEXIm information into a single, |
| | global license.dat file |
| -r | Release sessions that have become disconnected due to a |
| | system failure or other problem |
| -s | Start the License Manager |
| -u wp60 | List the users currently running WordPerfect 5.2 + or |
| • | WordPerfect 6.0 |

IMPORTANT: All users can run wplicense without startup options to check the status of the License Manager; they can also use the -u startup option to list current WordPerfect users. All other wplicense startup options require superuser or lmadmin group privileges.

Choose from the following How Do I topics for more information about using the License Manager utility:

- < < Check the Status of the License Manager > >
- < < Start the License Manager > >
- < < Stop (Kill) the License Manager > >
- < < Increase the Number of Licensed Sessions > >
- < < Edit the license.dat File > >
- < < Merge license.dat Files > >

HINT: In the WordPerfect 5.2 + SysAdmin Help Contents screen, choose 1..How_Do_I, choose 2..Manage_WP_5.2+, choose 2..Licensing, then view a topic for instructions.

License Options File

The license opt file lets you customize users' access to WordPerfect on your system. For example, you can reserve licenses for specific users, include or exclude certain users, make specifications for groups, and filter specified messages from the system's License.Log file. < < HINT: See below. > >

When you install WordPerfect, the initial license.opt file contains two lines: **NOLOG OUT** NOLOG IN

Users check licensed sessions out from the License Manager in much the same way that one checks out books from the library. When licensed sessions are "in," they are available for use, and when they are "out," people are already using them.

The NOLOG OUT and NOLOG IN options keep the License Manager from writing to the License.Log file every time someone starts using a licensed program (that is, checks out a licensed session) or exits a licensed program (that is, checks the license back in). Using the NOLOG options slows the growth of the License.Log file.

You can edit the license.opt file using any UNIX text editor, such as vi. You can customize the settings for the following options:

```
RESERVE number feature ...
             ... {USER | HOST | DISPLAY | GROUP } name
<u>INCLUDE</u> feature ...
             ... {USER | HOST | DISPLAY | GROUP } name
EXCLUDE feature ...
             ... {USER | HOST | DISPLAY | GROUP } name
GROUP name user1 user2 user3 ...
NOLOG {IN | OUT | DENIED}
TRANSPORT {TCP | UDP}
```

RESERVE option

Use RESERVE in the license.opt file to "hold" a specified number of licensed sessions of WordPerfect for specified users, groups, or hosts. For example:

```
RESERVE 1 wp60 USER ken
RESERVE 3 wp60 GROUP sales
```

If you reserve sessions, other users cannot access them.

IMPORTANT: WordPerfect uses one feature name, wp60, whether you are running both WordPerfect 6.0 and WordPerfect 5.2 + or running either product separately.

INCLUDE option

Use INCLUDE in the license.opt file to specify which users, groups, or hosts have permissions to use WordPerfect. For example:

INCLUDE wp60 HOST probe INCLUDE wp60 GROUP sales

Unlike RESERVE, INCLUDE does not guarantee a licensed session for any specific user(s); it simply grants permission to use available sessions. If you use INCLUDE, only the users, groups, or hosts you name individually can use WordPerfect.

EXCLUDE option

Use EXCLUDE in the license.opt file to specify users, groups, or hosts who are disallowed from using WordPerfect. For example:

EXCLUDE wp60 USER david

This option overrides the INCLUDE and RESERVE options.

GROUP option

Use GROUP in the license.opt file to create a name for a list of users. For example:

GROUP dev doug dave shawn jill christine

Group names can include as many as 198 characters; you must separate usernames with spaces.

NOLOG option

Use NOLOG in the license.opt file to filter out messages of a specified type from the log file where the License Manager records date, time, and daemon information for each license request. Three types of information can be filtered out using IN, OUT, and DENIED with the NOLOG option.

| Option | Explanation |
|--------------|-------------------------------------|
| NOLOG IN | Checked-in licenses are not listed |
| NOLOG OUT | Checked-out licenses are not listed |
| NOLOG DENIED | Users denied access are not listed |

The NOLOG option reduces the amount of data written to the License.Log file in the WordPerfect shbin10 directory.

TRANSPORT option

Use TRANSPORT in the license.opt file to choose between TCP (the default) and UDP. Servers that use UDP clients require a small, fixed number of sockets. This can be preferable on systems with limited resources. In addition, they never need to spawn additional vendor daemons (as TCP servers do) when they use up the maximum number of file descriptors. TCP and UDP have no discernable difference in speed.

A second way to specify UDP transport for the License Manager is to set the FLEXLM COMM TRANSPORT environment variable to UDP.

Sample license.opt File

The following example of a <u>license.opt file</u> performs several functions.

RESERVE 1 wp60 USER greg <u>INCLUDE</u> wp60 HOST floor1 GROUP technicians ken bill shirlene charles #Remove the RESERVE on Friday **NOLOG OUT NOLOG IN** TRANSPORT UDP

This license.opt file:

- Reserves one copy of WordPerfect at any time for the user
- Allows only those users included on the host system named floor1 to run an available copy of WordPerfect
- Names a group of technicians
- Lists a reminder to remove the RESERVE option on Friday
- Sets NOLOG so that the License Manager does not record who has checked a copy of WordPerfect in or out
- Specifies UDP network communication, instead of TCP

Keep in mind the following:

GROUP is the only option that allows a list. For all other options, you must use a separate line for each program, user, group, host, or setting. If you want to reserve a copy of WordPerfect for the user greg and for three users in the sales group, you need two lines:

> RESERVE 1 wp60 USER greg RESERVE 3 wp60 GROUP sales

- You can add comment lines if you start them with the # sign.
- By default, all users are allowed to use WordPerfect. To keep the majority of users out, use INCLUDE to list only those who are permitted access. To let the majority of users in, use EXCLUDE to list only those who are denied access.

After you have edited the license.opt file, you must stop and restart the License Manager. < < HINT: See below. > >

Hint

The License.Log file, located in the WordPerfect shlib10 directory, records License Manager activity related to WordPerfect. The amount of information recorded can be regulated using the NOLOG option in the license.opt file.

Every time you stop and start the License Manager using the -k and -s options of the License Manager utility (wplicense), the License.Log file is backed up and replaced with an empty file. The most recent backup file is License.Logbk1. The backup filename extensions rotate from 1 to 5, with 1 always being the most current. When a backup file is made, the bk1 extension becomes bk2, bk2 becomes bk3, and so on, with bk5 being the oldest.

Hint

Steps

To stop (kill) the License Manager,

Log in with superuser permissions.

IMPORTANT: You must be a superuser or a member of the Imadmin group, because the FLEXIm License Manager may be monitoring other products in addition to WordPerfect.

- Change to the WordPerfect shbin10 directory.
- 3 Type ./wplicense -k, then press Enter.

Only authorized users can stop (kill) the License Manager.

Hint

Steps

To start the License Manager,

Log in with superuser permissions.

IMPORTANT: You must be a superuser or a member of the lmadmin group, because the FLEXIm License Manager may be monitoring other products in addition to WordPerfect.

- Change to the WordPerfect shbin10 directory.
- Type ./wplicense -s, then press Enter.

Only authorized users can start the License Manager.

License Manager Error Messages

Cannot connect to license daemon (error)

This error message can simply mean that the License Manager is down on your local system. Start the License Manager with wplicense -s.

You may also need to log in to the application server to make sure the License Manager is running there as well. Change to the WordPerfect shbin10 directory and use ./wplicense to make sure the License Manager is running. If you need to start the License Manager, use ./wplicense -s.

If the License Manager still does not start,

- Check the information on the SERVER, DAEMON, and FEATURE lines in the license.dat file in the WordPerfect shlib10 directory to make sure these lines are accurate. Correct any discrepancies between the license.dat file and your system setup.
- Check the License.Log file in the WordPerfect shbin10 directory for additional error messages.
- Make sure the network itself is up. If you can rlogin to the license server, you know TCP/IP is running.
- Rename the license.dat file and run wplicense -e again to create a new license.dat file. Then stop and restart the License Manager.

Cannot find SERVER hostname in network database (error)

This error indicates that the License Manager could not find the server specified on the SERVER line in the license.dat file.

- Make sure both TCP/IP and inetd are running.
- If your network is functioning properly and you are using NIS, use ypcat hosts | grep hostname to confirm that the server is recognized by the system. Also check the /etc/hosts file.
- If the license server is not listed in the /etc/hosts file, use a text editor such as vi to add the license server hostname to the /etc/hosts file along with its network IP address.

You may also get the error "Invalid hostname on SERVER line" in similar circumstances.

Clock difference too large between client and server (error)

This error message indicates that the date on the client system (where you are running WordPerfect) is different by more than 30 minutes from the date on the license server.

> Make sure the times are set correctly on both the client and the license server.

Check the time zone settings on both systems.

Feature not found in license file (error)

Check permissions on the license.dat file to make sure users have read access. Also, check the License.Log file for additional errors.

Inconsistent encryption code in license file (error)

Check to make sure the license.dat file was not edited and that the number of user sessions or the copy expiration date was not changed. If either of these entries has been altered, use ./wplicense -e to re-create the license.dat file.

Invalid TCP/IP socket number on SERVER line (error)

This error message appears if the SERVER line in the license.dat file does not specify a TCP/IP socket number or if it specifies an incorrect TCP/IP number. Change the port number on the SERVER line.

License file not found (error)

The license.dat file in the WordPerfect shlib10 directory may have been deleted, renamed, or corrupted. Use ./wplicense -e in the WordPerfect **shbin10** directory to create a new file.

Network software (TCP/IP) not available (error)

The License Manager cannot run without either TCP or UDP available on your system.

No port number in license file (error)

The License Manager found no valid socket number on the SERVER line in the license.dat file in the WordPerfect shlib10 directory. Check and, if necessary, change the port number.

No SERVER lines in license file (error)

The License Manager found no valid SERVER lines in the license.dat file in the WordPerfect shlib10 directory. Use ./wplicense -e in the shbin10 directory to specify the license server.

No such feature exists (error)

The FEATURE line in the license.dat file in the WordPerfect shlib10 directories specifies an unknown feature. Check and, if necessary, change the feature specification. The feature designation for WordPerfect is wp60, whether you are running both WordPerfect 6.0 and WordPerfect 5.2 + or running them separately.

Retrying socket bind -- address in use (error)

Modify the TCP/IP port number on the SERVER line in the license.dat file.

This error occurs if the License Manager finds the TCP/IP port already in use by another process. The License Manager continues to try to access the port for approximately six minutes if it detects address-in-use errors. Use the tail License.Log command to repeatedly check the end of the License.Log file.

To change the TCP/IP port number the License Manager is using, kill the License Manager and edit the license.dat file to change the port number. Then restart the License Manager. If the problem persists, kill the License Manager again. This should eliminate the wplmd60 and lmgrd processes. Do a process check to make sure these processes are gone using a command like one of the following examples:

```
ps -aux | egrep "wplmd60 | lmgrd"
ps -eaf | egrep "wplmd60 | lmgrd"
```

If any License Manager daemons are still listed, they are corrupt processes, because the wplicense -k command cannot kill them. The list includes the process IDs for the license and the vendor daemons. For example,

```
2131 wplmd60
2132 lmgrd
```

To kill these corrupt processes, use the kill command. For example, kill -9 2131 2132.

After any corrupt processes have been eliminated, restart the License Manager with wplicense -s.

License Manager Troubleshooting

In addition to resolving specific error messages, consider the following symptoms and strategies in resolving the problem with the <u>License Manager</u>:

License Manager does not start

If you cannot start the License Manager when you use wplicense -s, check the License.Log file in the WordPerfect shlib10 directory for error messages, then look up the specific error message.

License.Log file too large

You may want to consider using the NOLOG option in the license.opt file to filter out unwanted messages. Three types of information can be filtered out using IN, OUT, and DENIED with the NOLOG option.

| Option | Explanation |
|---------------------|-------------------------------------|
| NOLOG IN | Checked-in licenses are not listed |
| NOLOG OUT | Checked-out licenses are not listed |
| NOLOG DENIED | Users denied access are not listed |

In addition, every time you stop and start the License Manager using the -k and -s options of License Manager utility (wplicense), the License.Log file is backed up and replaced with an empty file. The most recent backup file is License.Logbk1. The backup files rotate from 1 to 5, with 1 always being the most current. When a backup file is made, bk1 becomes bk2, bk2 becomes bk3, and so on, with bk5 being the oldest.

Licensed sessions not released

To free an unreleased session for a user, use wplicense -r wp60 user host display (where user, host, and display identify the licensed session to be released). For example,

```
wplicense -r wp60 greg corp
```

You only need to specify the display when the user is logged in more than once. For example, to release a user's licensed session of WordPerfect at a particular terminal, include the device to differentiate one session from another.

```
wplicense -r wp60 greg corp /dev/ttyp4
```

WordPerfect uses one feature name, wp60, whether you are running both WordPerfect 6.0 and WordPerfect 5.2 + or running either product separately.

3. Speller Utility

Speller Utility

The Speller utility (wpspell52) helps you maintain the main dictionary used during spell-checking.

Main Speller Dictionary

The main Speller dictionary is accessed by all WordPerfect users. It is stored in the WordPerfect wplib directory and is named wplex.xx, where xx is a two-letter language code indicating the language of the dictionary. For example, the Speller dictionary for U.S. English is wplex.us.

Some languages have algorithmic Speller dictionaries, which means they use rules rather than word lists to check spelling. Algorithmic dictionaries cannot be modified using the Speller utility.

The main Speller dictionary included with WordPerfect consists of two parts: the main word list and the common word list.

Main Word List

The main word list includes all words in the Speller dictionary, so it is a very large file.

Common Word List

The common word list is a subset of the main word list that includes statistically common words such as articles, prepositions, and conjunctions, plus frequently used nouns, verbs, adjectives, and adverbs. This shorter common word list lets you find the most common words quickly without searching through the entire main word list.

The WordPerfect Speller dictionary is in compressed format to save disk space and memory. When you add words to your dictionary while spell-checking a document, you actually create a separate, personal supplementary dictionary, rather than adding the words to the main Speller dictionary.

Supplementary Dictionary

Your personal supplementary dictionary is named wplexsup.xx (where xx is the two-letter language code indicating the language of the dictionary). When you add words to your dictionary while spell-checking a document, you add them to your supplementary dictionary, not the main Speller dictionary. Your supplementary dictionary is stored in your home directory.

Run the Speller Utility

Steps

To start the Speller utility,

- Log in as the primary WordPerfect administrator.
- Change to the directory where the dictionary to edit is located.

Type /WPdir/shbin10/wpspell52 (where /WPdir is the full pathname of the WordPerfect installation directory), then press Enter to start the Speller utility.

The main Speller dictionary, wplex.us in the WordPerfect wplib directory, is provided as the default dictionary to edit.

HINT: See < < Speller Utility Options > > for descriptions of the options on the main Speller utility menu.

To cancel your choice of a menu item in the Speller utility, press 0 (zero) or Cancel. To cancel a prompt requesting text, press Enter in the prompt field when it is empty. To exit the Speller utility, press 0 (zero) or Exit.

Choose from the following How Do I topics for step-by-step instructions:

- < < Add Words to a Dictionary > >
- < < Delete Words from a Dictionary > >
- < < Optimize a Speller Dictionary > >
- < < Combine Speller Dictionaries > >

HINT: In the main WordPerfect 5.2 + SysAdmin Help Contents screen, choose 1..How_Do_I, choose 2..Manage_WP_5.2+, choose 3..Dictionaries, then view the topic you need.

Speller Utility Options

Change/Create Dictionary

Use this option of the Speller utility (wpspell52) to change from the current Speller dictionary to a different dictionary. If you want to edit a dictionary other than the current one, you must change to that dictionary before choosing other options from the Speller utility menu. You are prompted for the name of the dictionary you want to be the current dictionary.

To create a new Speller dictionary, enter a new filename when prompted for a dictionary. Since the dictionary does not yet exist, you are asked if you want to create it.

Add Words to Dictionary

Use this option of the Speller utility (wpspell52) to add words to the common word list and/or main word list in the current Speller dictionary. You can add words by typing individual words at the keyboard or by providing a list of words in a file.

Be sure to enter all words or files to be added to the Speller dictionary before choosing 5 - Exit on the Add Words menu; the addition process can take as long as five minutes, regardless of the number of words being added. If you are adding a large number of words from a file, alphabetizing the words in the file before adding them to the dictionary helps the update process go faster.

Words added to the common word list are automatically added to the main word list.

Delete Words from Dictionary

Use this option of the Speller utility (wpspell52) to delete words from the common word list and/or main word list in the current Speller dictionary. You can delete words by typing individual words at the keyboard or by providing a list of words in a file.

Be sure to enter all words or files to be deleted from the Speller dictionary before choosing 5 - Exit on the Delete Words menu; the deletion process can take as long as five minutes, regardless of the number of words being deleted.

Words deleted from the common word list are automatically deleted from the main word list.

Optimize Dictionary

Use this option of the Speller utility (wpspell52) to reduce the amount of disk space taken up by the current dictionary and to enable spell-checking to run faster. Choose this option after adding new words to the Speller dictionary.

Display Common Word List

Use this option of the Speller utility (wpspell52) to view the words in the common word list of the current Speller dictionary.

Check Location of a Word

Use this option of the Speller utility (wpspell52) to determine whether a word is in the main word list only, or if it is in both the main and common word lists, or if it is not found in the current Speller dictionary.

Press Enter on the empty field when you are finished checking words.

Look Up

Use this option of the Speller utility (wpspell52) to look up one or more words. If the word is not found, alternative, correctly spelled words are suggested.

Also use this option to look up one or more words that match a pattern. After choosing this option, you are prompted to enter a word pattern that includes wildcard characters.

Use a question mark (?) to represent a single variable letter. Use an asterisk (*) to represent zero or more variable letters in succession. After you enter the pattern, the screen displays a list of words matching that pattern.

Press Enter on the empty field when you are finished looking up words or patterns.

Phonetic Lookup

Use this option of the Speller utility (wpspell52) to look up words in the current dictionary that are phonetically similar to a spelling.

When you choose this option, you are prompted to enter a word. Once you have entered the word, the screen displays words that sound similar to the spelling you entered. (You may not use wildcard characters with this option.)

Press Enter on the empty field when you are finished looking up words.

Convert 4.2 Dictionary to 5.1/5.2+

Use this option of the Speller utility (wpspell52) to convert a Speller dictionary from WordPerfect 4.2 format to WordPerfect 5.2 + format.

> IMPORTANT: WordPerfect 5.2 + does *not* use the same dictionary format as WordPerfect 6.0. To convert a WordPerfect 6.0 dictionary to 5.2 + format, use the WordPerfect 6.0 Speller utility (wpsputl).

Combine Other 5.0 or 5.1/5.2 + Dictionary

Use this option of the Speller utility (wpspell52) to combine an existing 5.0 or 5.1/5.2 + Speller dictionary with the current dictionary.

Word-list dictionaries from multiple languages can be combined into a single dictionary, so you can spell-check files containing text in more than one language.

IMPORTANT: WordPerfect 5.2 + does *not* use the same dictionary format as WordPerfect 6.0. Do not attempt to combine a WordPerfect 6.0 dictionary with a WordPerfect 5.2 + dictionary.

Compress/Expand Supplementary Dictionary

Use this option to compress a supplementary dictionary by moving the words from the document portion of the file into the file header, which you cannot see or edit in WordPerfect. Compressing the file has the following advantages:

- Words in the compressed portion of the dictionary will appear as replacement words when a word is not found during spellchecking.
- The amount of disk space required to store the file is reduced.

Choose from the following How Do I topics for step-by-step instructions on using common options of the Speller utility:

```
< < Add Words to a Dictionary > >
```

< < Delete Words from a Dictionary > >

< < Optimize a Speller Dictionary > >

< < Combine Speller Dictionaries > >

HINT: In the main WordPerfect 5.2 + SysAdmin Help Contents screen, choose 1..How_Do_I, choose 2..Manage_WP_5.2+, choose **3..Dictionaries**, then view the topic you need.

Hyphenation Utility

The Hyphenation utility (hyphen) is used to create and edit the hyphenation exception dictionary (wphyd.us).

Steps

To start the Hyphenation utility,

- Change to the WordPerfect wplib directory.
- 2 Make sure the WordPerfect wpbin directory is on your path.
- 3 Make sure the WPTERM52 environment variable is set properly for your terminal.
- Type **hyphen52**, then press Enter.

HINT: If you have not already created the exception dictionary (wphyd.us), the following prompt appears: "Exception dictionary wphyd.us not found. Create a new dictionary named wphyd.us (Y/N)?" Press y for Yes to create the exception dictionary.

The Hyphenation utility menu appears.

Options

The options on the Hyphenation utility menu are described below.

Change exception dictionary

Allows you to change the exception dictionary you are using. If the exception dictionary you want to use is not in your current directory, enter its full pathname.

Add words to exception dictionary

Allows you to add words to the exception dictionary. You may enter words individually, as a WordPerfect 5.0 file, or from a WordPerfect 4.2 hyphenation module. Added words need to contain hyphen characters or the numbers 1, 2, or 3, which represent hyphens.

The greater the number, the higher the hyphenation priority (a hyphen character is the same as a number 3). When WordPerfect hyphenates a word, the highest-priority hyphen in the hyphenation zone is used as the hyphenation location.

For example, if you added the word **international** to the hyphenation module as inter-national, the word is hyphenated as inter-national any time the "rn" letter combination is within the hyphenation zone (the hyphen character represents priority 3—the highest priority). If the "rn" letter combination is not in the hyphenation zone and the "at" combination is, then the word is hyphenated between the "a" and the "t." If two or more hyphen positions with the same priority are in the hyphenation zone, the position closest to the right margin is used.

If words are entered as a file, each word should be separated by a hard return.

Delete words from exception dictionary

Allows you to delete words from the exception dictionary. Words can be deleted individually or as a WordPerfect 5.0 file.

Optimize exception dictionary

Compacts the exception dictionary to the smallest size possible, and thus decreases the time it takes to look up a word. Use this option after adding words to or deleting words from the exception dictionary.

Hyphenate words

Allows you to view where hyphens will be located when a word is hyphenated in WordPerfect. You may enter words individually or as a WordPerfect 5.0 file. If you enter words in a file, you must also enter an output filename. Words from the file you enter are hyphenated and displayed in the output file. The output file is created in the same format as the input file.

Look up (hyphen = hyphen)

Displays all words in the exception dictionary that match a particular word pattern. All hyphenation locations are displayed with a hyphen character. See Find in the WordPerfect 5.1 Reference and Speller in the Online Reference for information on word patterns.

Look up (hyphen = hyphen priority)

Displays all words in the exception dictionary that match a particular word pattern. All hyphenation locations are displayed with a number representing the priority of that hyphenation location. See Find in the WordPerfect Reference and Speller in the Online Reference for information on word patterns.

4. Install Program

Installation Program

After WordPerfect is installed and in use, you may need to reinstall it from the original media or update your installation with an interim release from new media from Corel Corp. You may also need to retrieve additional printer drivers or language files from the media.

- For a CD-ROM, use ./install.wp in the root directory of the CD-ROM to start the Installation program.
- For a tape, use ./wpinstall in the WordPerfect shbin10 directory to start the Installation program.

Choose from the following topics for more information about the Installation program:

- < < Installation Program Startup Options > >
- < < Installation Program Log File > >
- < < Post-Installation Tasks > >

Choose from the following *How Do I* topics for step-by-step instructions:

- < < Install an Interim Release > >
- < < Install More Printer Drivers > >
- < < Install More Terminal Drivers > >
- < < Install More Languages > >

HINT: In the WordPerfect 5.2 + SysAdmin Help Contents screen, choose 1.. How Do I, choose 2.. Manage WP 5.2+, then choose **4..Updates**, then view a topic.

Installation Program Startup Options

The <u>Installation program</u> uses startup options to control what files are installed.

| Option | Explanation |
|--------------|---|
| -a | Performs a full update for an interim release |
| -p langcodes | Installs additional <u>printer drivers</u> |
| -t | Installs additional terminal drivers |
| -1 langcodes | Installs additional languages |

The startup options -p, -t, and -l can be used together to install additional printer drivers, terminal drivers, and/or languages at the same time. The -a option must be used alone.

When installing printer drivers from a CD-ROM, the -p option requires one or more <u>language codes</u> because printer <u>.all files</u> are language-specific. When installing printer drivers from a tape, language codes are not required because only printer drivers for the system default language are installed.

Choose from the following *How Do I* topics for step-by-step instructions on installing updates:

```
< < Install an Interim Release > >
< < Install More Printer Drivers > >
< < Install More Terminal Drivers > >
< < Install More Languages > >
```

HINT: In the WordPerfect 5.2 + SysAdmin Help Contents screen, choose 1..How_Do_I, choose 2..Manage_WP_5.2+, then choose **4..Updates**, then view a topic.

Installation Program Log File

When you run the Installation program, a log file named .log is created in the WordPerfect shlib10 directory. The installation .log file records information about choices made during installation, including:

- Tar directory
- Installation directory
- Installation type (full/medium/minimum)
- License number
- Number of licensed sessions
- License server
- Edit rc file?
- Edit /etc/magic file?
- Printer drivers selected
- Printer driver/destination assignments created

During reinstallations or updates, the Installation program uses this information to determine defaults in some dialog boxes.

Post-Installation Tasks

If you performed a non-root installation of WordPerfect, you may have encountered installation tasks the <u>Installation program</u> could not perform because you lacked sufficient privileges. Such unfinished tasks could include:

- Adding the command to start the License Manager to the UNIX system boot file
- Adding the lines to the UNIX /etc/magic file to enable the UNIX file command to display file types for WordPerfect files (such as graphics files, macro files, styles files, and so on)
- Adding the specialized spooler options to the UNIX print spooler file(s) to ensure that WordPerfect print jobs arrive at the printer raw

In each case, the Installation program notified you that the task was not completed.

After installation, you can find instructions in the README.install file to help you manually perform these unfinished installation tasks. The README.install file is located in the WordPerfect wpbin directory.

5. Upgrade Utility

Upgrade Utility

The wpupg utility does not ship with standard copies of Wordperfect. The wpupg utility is only needed to upgrade demonstration and expiring copies of WordPerfect.

For information on increasing the number of WordPerfect users, choose 1..How_Do_I, choose 2..Manage_WP_5.2+, choose 2..Licensing, then choose D. Increase Number of Licenses.

6. File List

WordPerfect Directories

WordPerfect files are installed into standard subdirectories of the main directory you chose during installation. This main directory is referred to as the WordPerfect installation directory.

All directories and files in the WordPerfect installation directory structure are automatically created with the UNIX ownership and permissions required for the programs to run correctly.

WordPerfect Executable Directory (wpbin)

The wpbin directory contains the executable WordPerfect program files, such as wp.

Be sure the directory containing these files is in each user's path. During installation, users are given read and execute permissions for this directory; write permissions should not be given.

The wpbin directory also contains README files that provide additional information for the system administrator.

Choose from the following topics for explanations of the files in the wpbin directory.

```
< < WordPerfect Executable Files > >
< < WordPerfect README Files > >
```

WordPerfect Data Directory (wplib)

The wplib directory contains the data files WordPerfect uses during execution. It is not necessary for this directory to be in any user's path, because WordPerfect locates the data files in a directory relative to the directory from which WordPerfect is executed. For example, if you run WordPerfect in the /wp/wpbin directory, it looks for its data files in the /wp/wplib directory.

During installation, users are given read and execute permissions for this directory. Users should not typically have write permissions to the data directory, but they can be granted if necessary, and WordPerfect will still run properly.

Some files in the wplib directory include a two-letter <u>language code</u> representing the language of the text in the file. < < HINT: See below. > >

View the < < WordPerfect Data Files > > topic for explanations of the files in the wplib directory.

WordPerfect Graphics Directory (wpgraph)

The wpgraph directory contains a set of sample graphics files for use in WordPerfect documents. Illustrations of sports, animals, landscapes, organizational and seasonal themes, as well as a variety of borders are included.

If you install WordPerfect in multiple languages, graphics files for the system default language are installed directly into the wpgraph directory. Graphics files for other languages are installed into subdirectories of the wpgraph directory, where the subdirectories are identified by two-letter language codes. < < HINT: See below. > >

WordPerfect Macros Directory (wpmacros)

The wpmacros directory contains a set of sample macros for use in WordPerfect. The macros automate aspects of formatting documents, including font adjustment, capitalization adjustment, footnote/endnote conversion, special header/footer information, decorative page borders, drop caps, and watermarks.

If you install WordPerfect in multiple languages, macros for the system default language are installed directly into the wpmacros directory. Macros for other languages are installed into subdirectories of the wpmacros directory, where the subdirectories are identified by two-letter language codes. < < HINT: See below. > >

WordPerfect Learn Directory (wplearn)

The wplearn directory contains language-specific subdirectories for sample WordPerfect documents you can use with the lessons in the WordPerfect Workbook. The subdirectories are identified by two-letter language codes. < < HINT: See below. > >

Users do not have write permissions to the wplearn directory or its subdirectories because the Learn files must be kept in their original state in order to work with the lessons.

To make the Learn files available so that users can retrieve them into WordPerfect, work through the lessons, and save their work, you need to provide a copy of the Learn files in a lessons subdirectory of each user's home directory and make sure users have access to a copy of the WordPerfect Workbook.

The wplearn directory also contains the charmap.tst file. By printing this file, you can see what WordPerfect characters your printer is capable of printing.

WordPerfect Samples Directory

The samples directory contains sample documents, including a newsletter, an outline, a report, some tables, and the primary and secondary files for a merged form letter.

If you install WordPerfect in multiple languages, sample documents for the system default language are installed directly into the samples directory. Sample documents for other languages are installed into subdirectories of the samples directory, where the subdirectories are identified by two-letter language codes.

< < HINT: See below. > >

Shared Executable Directory (shbin10)

The shbin10 directory contains programs that can be used by WordPerfect and related products at the Shared Code 1.0 level. Shared programs include the Print Server (wpexc60) and the Printer Destination program (wpdest).

During installation, users are given read and execute permissions for this directory. No write permissions should be given.

You should add this directory to the path of all WordPerfect administrators. WordPerfect administrator privileges are required to run many of the programs in this directory, such as stopping the Print Server or using the Printer Destination program to create or edit WPApp printer destinations.

View the < < Shared Executable Files > > topic for explanations of the files in the shbin10 directory.

Shared Data Directory (shlib10)

The shlib10 directory contains the data files that can be used by WordPerfect and related products at the Shared Code 1.0 level. Shared data files include printer drivers, terminal drivers, and the wpdest.def file.

During installation, users are given read and execute <u>permissions</u> for this directory.

Some files in the shlib10 directory include a two-letter language code representing the language of the text in the file.

< < HINT: See below. > >

View the < Shared Data Files > > topic for explanations of the files in the shlib10 directory.

Hint

A language code is a two-letter abbreviation for a language. Language codes are used when installing additional languages, when starting WordPerfect in a specific language, and when locating language-specific Learn files, macros, graphics, and so on.

| Language | Code |
|------------------------|------|
| Danish | dk |
| Dutch | nl |
| English-Afrikaans | ea |
| English-Australian | OZ |
| English-Canada | ce |
| English-United Kingdom | uk |
| English-United States | us |
| Finnish | su |
| French-Canada | cf |
| French-National | fr |
| German-National | de |
| German-Swiss | sd |
| Italian | it |
| Norwegian | no |

Spanish-Catalan ca Spanish-National es

WordPerfect Executable Files

The following WordPerfect 5.2 + executable files are found in the wpbin directory.

File **Description** hyphen Hyphenation utility Macro Conversion utility macrocnv WordPerfect 5.2+ wp wpperms Utility to check/set permissions WordPerfect Print for 5.2 + documents wprint wpsahlp WordPerfect 5.2 + SysAdmin Help wpspell Speller maintenance utility for 5.2 + Speller dictionaries

The following WordPerfect 6.0 executable files are found in the wpbin directory if 6.0 is installed along with 5.2 + .

File **Description** WordPerfect 6.0 for the X Window System xwp WP Draw xwpdraw WordPerfect 6.0 SysAdmin Help xwpsahlp

WordPerfect Data Files

The following WordPerfect 5.2 + data files are found in the wplib directory.

| Description |
|--|
| Macro resource files |
| QuickFinder resource files |
| Language-specific text, message, and error files for |
| WordPerfect, identified by <u>language codes</u> |
| 5.2 + keyboard files |
| 5.2 + macro files |
| Current system default language |
| System default settings file |
| |

The wplib directory also holds the WP5.2+_SysAdmin_Help directory, which contains subdirectories of WordPerfect documents that make up WordPerfect 5.2 + SysAdmin Help.

The following WordPerfect 6.0 data files are found in the wplib directory if 6.0 is installed along with 5.2 + ...

| Description |
|---------------------------------------|
| Scripts to enable mail in WordPerfect |
| WordPerfect online help files |
| System default settings file |
| System default styles file |
| WordPerfect X resources |
| Initial Caps resource file |
| |

WordPerfect README Files

The following WordPerfect README files are found in the <u>wpbin directory</u>.

| File | Description |
|----------------|---|
| README | Introduction to README files |
| README.errata | Corrections to the <i>WordPerfect Installation Guide</i> (if any) |
| README.install | Unfinished installation tasks (if any) |
| README.license | U.S.A. License Agreement |
| README.os.xxx | Installation notes for your UNIX version (if any) |
| README.sah | Instructions for installing WordPerfect 5.2+ |
| | SysAdmin Help separate from a full installation |

Shared Executable Files

The following WordPerfect 5.2 + Shared Code executable files are found in the shbin10 directory.

File **Description**

.wpdevice Default device for Installation program Non-WP document conversion utility cvt60

FLEXIm error log License.Log

lm hostname FLEXIm license server utility FLEXIm Imadmin group utility lm isadmin

lmdown FLEXIm utility to stop license daemons

lmgrd FLEXIm license daemon

Imremove FLEXIm utility to free frozen licenses

FLEXIm status utility lmstat

lmutil FLEXIm maintenance utility

ptr52 Printer Driver Editor

QuickFinder qf

FLEXIm utility to start license daemons servers_up WordPerfect utility to create license.dat wpcreatlic

wpdest Printer Destination program (character-based version)

Print Server wpexc60

Graphics conversion utility wpgraph wpkey Utility to display keystroke codes

wplicense License Manager utility wplmd WordPerfect license daemon wpformat Utility to format banner files

Print Formatter wpp

wpped Script to edit UNIX print spooler files

Personal Print Oueue wppq

WordPerfect Print for 5.2 + documents wprint wpspell Speller maintenance utility for 5.2 + Speller

dictionaries

Terminal Driver Editor wpterm

wpupg Upgrade utility

The following WordPerfect 6.0 executable files are found in the shbin10 directory if 6.0 is installed along with 5.2 + .

File **Description**

hyperhelp Bristol HyperHelp System Keyboard mapping utility tenkey

Internal program to play macros wpplay

Speller maintenance utility for 6.0 Speller dictionaries wpsputl

xwpdest Printer Destination program

xwpfi Font Installer xwpgmk5 Grammatik

Installation program xwpinstall xwppmgr Print Manager xwpspell Speller program xwpthes Thesaurus program

Shared Data Files

The following WordPerfect 5.2+ Shared Code data files are found in the shlib10 directory.

| File | Description |
|--------------|---|
| *.all | Groups of related printer drivers |
| *.lp | Remote Lp printer script file |
| *.lpr | Remote Lpr printer script file |
| *.prs | Printer drivers |
| *.us | Language-specific text, message, and error files for |
| | WordPerfect (the .us indicates U.S. English files) |
| .wpc52.set | Default system shared settings file |
| ehandler.ps | PostScript error handler file |
| header52.wp | Default leading banner file |
| license.dat | License Manager data file |
| license.opt | License Manager options file |
| perms.list | Master list of permissions for WordPerfect directories |
| | and files |
| prscnv*.wp | Printer driver conversion data |
| sfcnv*.wp | Sheet feeder conversion data |
| trailer52.wp | Default trailing banner file |
| ttyswrc | SunView initialization file |
| wp52.drs | Display resource file |
| wp52.lrs | Language resource file (for language-specific text such |
| • | as the days and months used in dates) |
| wp52.grs | Graphics resource file |
| wpmagic | WordPerfect magic number file |
| wpterm.man | Terminal Driver Editor documentation |
| WPXterm | X resources for running WordPerfect 5.2 + in an X |
| | window |

The following WordPerfect 6.0 data files are found in the shlib10 directory if 6.0 is installed along with 5.2 + .

| File | Description |
|--------------|--|
| *.hlp | Shared Code help files |
| *.us | Language-specific text, message, and error files for |
| | WordPerfect (the .us indicates U.S. English files) |
| .wpc60.set | Default system shared settings file |
| C | Locale database for X11 R5 fonts |
| gw51en.mor | Grammatik morphology file |
| gw51us.rul | Grammatik rule file |
| header.wp | Default leading banner file |
| nls.alias | Locale database for X11 R5 fonts |
| nls.dir | Locale database for X11 R5 fonts |
| pcl4map.fil | Utility to map PCL4 characters to WordPerfect characters |
| trailer.wp | Default trailing banner file |
| wp.lrs | Language resource file (for language-specific text such as the |
| | days and months used in dates) |
| wp_wp_us.lab | Label file |
| | |

wpus.lex wpus.ths Speller dictionary Thesaurus

wtapi.init Writing tools initialization file

Temporary Directories

WordPerfect creates temporary files related to user documents in the WordPerfect temporary directory. It creates temporary files related to print jobs in the shared temporary directory.

WordPerfect Temporary Directory (/tmp)

When a user starts WordPerfect, document-related temporary files are created in the WordPerfect temporary directory. When the user exits WordPerfect, these temporary files are automatically deleted. Users must have full permissions (read, write, and execute) for this directory.

You can change the directory WordPerfect uses for document-related temporary files by setting each user's WPTMP environment variable to a different directory.

Shared Temporary Directory (/tmp/wpc-hostname)

When a user prints a document in WordPerfect, print-related temporary files are created in the shared temporary directory. When the document has finished printing, these temporary files are automatically deleted. Users must have full permissions (read, write, and execute) for this directory.

You can change the directory WordPerfect uses for print-related temporary files by setting the SHTMP environment variable for all users to a different directory.

Check Permissions on WordPerfect Directories and Files

During installation, WordPerfect directories and files are created with the required <u>permissions</u>. Over time, permissions can get changed. The wpperms utility in the WordPerfect wpbin directory helps you check and, if necessary, set the correct permissions on WordPerfect files.

Steps

To check the existing permissions of the installed WordPerfect files against the required permissions provided in the perms.list file,

- Change to the WordPerfect wpbin directory. 1
- Type ./wpperms -c, then press Enter.

The -c option checks existing permissions but does not modify them. A message notifies you if any permissions on your system do not match the expected permissions.

Steps

If permissions do not match and you want to reset them to the required permissions listed in the perms.list file,

- Log in as a WordPerfect administrator. 1
- Change to the WordPerfect wpbin directory.
- Type ./wpperms -s, then press Enter.

The -s option resets the permissions on the WordPerfect directories and files to those specified in the perms.list file.

Glossary

Glossary

Α

.all file

The printer .all files provided with WordPerfect are the source files for the printer drivers (.prs files) you create when you set up printers. A .all file contains information about several similar printers. WordPerfect extracts the information unique to one printer in order to create a .prs file for that printer. By default, printer .all files are stored in the WordPerfect shlib10 directory.

administrator

See WordPerfect administrator.

AIX spooler

The print spooler to which the **qprt** spool command sends print jobs on AIX systems.

AIX Spooler output type

The AIX Spooler output type is one of the WPApp Spool Command output types. The Printer Destination program (wpdest) checks your system to see what kind of print spooler is in use, then sets up a typical spool command for it, for example:

qprt - c - Pwpq1 < f >

In addition, if you have write permissions to the /etc/qconfig file, the Printer Destination program also sets up a specialized print queue (such as wpq1 in the example above) to ensure that WordPerfect print jobs arrive at the printer raw.

Since the AIX Spooler output type is intended to work in typical AIX spooler configurations, it may not work for a printer that requires special handling at the system level.

A printer that does not print when set up using the AIX Spooler output type may print when set up using the Custom Spool Command output type, which allows for more flexibility and adaptation to specialized circumstances.

В

banners

On multi-user systems, leading and trailing banners are often used to separate print jobs. A leading banner prints before the job. A trailing banner prints after it. Usually, a banner includes the filename of a print job, the date and time it was sent, and the username of the person who sent it.

baud rate

Baud rate is a measure of the transmission speed at which data is transmitted from one digital device to another, for example, from a computer to a printer. The devices must be configured at the same baud rate for information to transfer correctly. The higher the baud rate, the faster the transmission.

You can select baud rates ranging from 50 to 38,400 bits per second for a WPApp printer destination. If the computer and the printer are communicating at different rates, data can be lost.

The baud rate you specify is added to the stty command for the printer destination. A baud rate of 9600 is typical.

boot file

The UNIX system boot file is a file, such as /etc/rc or /etc/rc.local, that is executed by the operating system when you first start your computer.

C

character set

A character set is a finite group of letters, numbers, and/or symbols that is complete for a given purpose. WordPerfect character sets include:

- **ASCII**
- Multinational
- Phonetic
- **Box Drawing**
- Typographic Symbols
- **Iconic Symbols**
- Math/Scientific
- Greek
- Hebrew
- Cyrillic
- Japanese
- Arabic

choose

Use the mouse or the keyboard to pick a menu item or option to initiate an immediate action.

common word list

The common word list is a subset of the main word list that includes statistically common words such as articles, prepositions, and conjunctions, plus frequently used nouns, verbs, adjectives, and adverbs. This shorter common word list lets you find the most common words quickly without searching through the entire main word list.

control character

A control character is a non-printing ASCII character which controls the flow of transmissions over data networks

You insert control characters by holding down the Control key and then pressing a letter. The control character is displayed as a ^ in front of the letter. For example, 'M is the carriage return character.

cron

A cron is a UNIX process that runs automatically to perform a specific activity at a specified time. For example, on some systems a cron deletes all files from the /tmp directory at a specific time each night.

custom print command

Standard UNIX print commands include lpr, lp, and qprt. Other commands, sometimes part of third-party packages, can also be used to print.

Custom Spool Command output type

The Custom Spool Command output type lets you print from WordPerfect using any command capable of printing a file at the system level. It can be a spool command (lpr, lp, or qprt) or other commands (such as print or even cat). It is your responsibility to ensure that the command works at the system level and that WordPerfect print jobs arrive at the printer raw, meaning that they must not be modified by the UNIX print spooler as it handles WordPerfect print jobs.

The Custom Spool Command output type must often be used with printers that require special handling at the system level.

D

daemon

A daemon is a program, typically started by root, that runs unattended to perform a standard service. Daemon processes generally provide services that must be available at all times to all users.

data bits

Data can be formatted into units consisting of either seven or eight bits. If your system is sending data in units of eight bits but your printer is set up to only handle units of seven bits (or vice versa), proper unit boundaries are not maintained and the data gets garbled.

If you specify eight data bits for a WPApp printer destination, a cs8 setting is added to the stty command in the definition. If you specify seven data bits, a cs7 setting is added.

In most cases, a setting of eight data bits is required to print WordPerfect print jobs. The special and multinational characters in the WordPerfect character sets require eight data bits.

Dedicated WPApp Device output type

For a Dedicated WPApp Device printer destination, the UNIX print spooler is not involved. Instead, the Print Server (wpexc) manages the queue of WordPerfect print jobs, which are sent directly to the printer device (for example, /dev/lp1).

Because the UNIX print spooler is not involved, print jobs from applications other than WordPerfect should not be sent to a Dedicated WPApp Device printer.

destination

See printer destination.

destination access

You can restrict access to WPApp printer destinations in the Printer Destination program (wpdest). By default, all users are allowed to use all WPApp printer destinations. However, you can assign specific groups and/or users to specific destinations so that other groups and users cannot access them.

device

A device is a physical component of a system, such as a printer or terminal. It is also the file representing the component's connection to the system (such as /dev/lp1).

Disk output type

The Disk output type does not involve th UNIX print spooler. Instead of the print job being sent to a printer, a printer-ready file is created on disk, with the filename you choose. You can then use a system-level UNIX command to print the file.

Ε

e-mail

Electronic mail (e-mail) is user-to-user correspondence in the form of messages transmitted between terminals or workstations on a network.

environment variable

An environment variable is a name used to represent data that affects the way an operating system or program runs and the devices it recognizes. For example, PATH and TERM are UNIX environment variables.

/etc/printcap file

The /etc/printcap file is the print spooler file used on Lpr spooler systems. It defines the system printers and may include one or more filter options for each printer.

/etc/qconfig file

The /etc/qconfig file is an ASCII database file that describes the queues and devices available for printing on an AIX Spooler system.

The **qconfig** file resides in the **/etc** directory for AIX 3.2 and above. However, for releases of AIX prior to 3.2, the **gconfig** file resides in the /usr/lpd directory.

excmsq7*

Files in the /tmp directory with names that start with excmsg7 are Print Server interprocess communication files.

executable directory

An executable directory is the directory where the files necessary to run various programs are stored.

For example, the executable directory for WordPerfect is the wpbin directory because it contains xwp, the WordPerfect executable file.

F

file locking

File locking is a mechanism used by the UNIX operating system to ensure that only one user can open a file with write permission at any time. File locking prevents multiple users from modifying the same file simultaneously and overwriting each other's changes.

filter option

The Lpr spooler uses filter options to control how print jobs are processed. By placing a particular filter option in the lpr spool command, you cause print jobs to be processed by the corresponding option in the /etc/printcap file. The table below lists the printcap filter options you can choose from.

| Option | Explanation |
|--------|---------------------|
| :cf | Cifplot filter |
| :df | Tex filter |
| :ff | Fortran filter |
| :gf | Graph data filter |
| :nf | Ditroff filter |
| :tf | Troff filter |
| :vf | Raster image filter |
| | |

You can find out what filter options are already in use on your system by checking the printer's entry in the /etc/printcap file.

FLEXIm

FLEXIm is a third-party application software package supplied by Highland Software, Inc., that has been integrated into WordPerfect to control the number of users that can run concurrent sessions of WordPerfect.

font

A font is a group of letters, numbers, and symbols with a common typeface. Fonts are described by name, weight, and size, as in Helvetica Bold 10 pt.

WordPerfect provides a wide range of fonts for use in WordPerfect documents. To see what fonts are available for the selected printer, press Font, then press 4 for Base Font.

G

No entries

handshaking

Handshaking is the series of signals between a computer and another device (such as a printer) that establishes the parameters required for passing data. If the printer cannot tell the computer to stop sending data when its buffer is full, information can be lost.

If you specify XON/XOFF handshaking in a WPApp printer destination, the settings ixon and clocal are added to the stty command for the destination.

If you specify hardware handshaking (DTR), the settings -ixon, -clocal, and (on some systems) ctsflow are added. XON/XOFF handshaking is the most typical setting, because hardware handshaking requires an additional connection between the computer and the printer.

home directory

Your home directory is your personal directory and is current immediately after you log in.

host

A host is any system that has at least one Internet address associated with it.

installation directory

The installation directory is the place where WordPerfect is installed. A minimum installation includes the wpbin, wplib, shbin10, and shlib10 subdirectories. More complete installations include additional specialized directories.

Installation program

The Installation program is used to install WordPerfect initially, to install updates, and to add printer drivers and/or languages to an existing WordPerfect installation.

For a CD-ROM, use ./install.wp in the root directory of the CD-ROM to start the Installation program.

For a tape, use ./wpinstall in the WordPerfect shbin10 directory to start the Installation program.

IPC file

An IPC file is an interprocess communication file, such as a message queue or a named pipe.

J

job type

Job types control the types of documents (for example, envelopes, letterhead, or after-hours batch printing) that can be printed to each WPApp printer

destination. For example, using job types can prevent a document meant for company letterhead from printing on envelopes.

Κ

No entries

L

language code

A language code is a two-letter code that represents the language of certain WordPerfect files.

license

A license is the right to use an application. Users check licensed sessions out from the License Manager in much the same way one checks books out of the library. When licensed sessions are "in," they are available for use, and when they are "checked out", people are already using them.

license daemon (Imgrd)

The license daemon sends client processes to the correct vendor daemon on the correct system. The same license daemon (lmgrd) is used by all applications from all vendors that use FLEXIm, because this daemon neither performs vendor-specific encryption nor dispenses licensed sessions of applications.

license file (license.dat)

The license.dat file is an end user-specific file that contains descriptions of the servers that can run the license and vendor daemons and the restrictions for all the licensed applications.

The license.dat file for WordPerfect is found in the WordPerfect shlib10 directory. It is also possible to have a global license.dat file containing the information for multiple applications from all vendors that use FLEXIm.

license options file (license.opt)

The license.opt file lets you customize users' access to WordPerfect on your system. For example, you can reserve licenses for specific users, include or exclude certain users, make specifications for groups, and filter specified messages from the system's License.Log file.

The **license.opt** file is located in the WordPerfect **shlib10** directory.

license server

A license server is the host where the License Manager daemons run. All WordPerfect users must access the same license server.

License Manager

The License Manager is the WordPerfect implementation of FLEXlm, a thirdparty application software package supplied by Highland Software, Inc. FLEXIm has been integrated into WordPerfect to control the number of users that can run concurrent sessions of WordPerfect.

The License Manager is composed of four parts:

lmgrd and wplmd7 License Manager daemons License Manager utility wplicense license.dat file License information file license.opt file License options file

License Manager utility (wplicense)

The License Manager utility lets you check the status of the License Manager, start and stop the License Manager daemons, and modify the license.dat file. It is located in the WordPerfect shbin10 directory.

License.Log file

The License.Log file, located in the WordPerfect shlib10 directory, records License Manager activity related to WordPerfect. The amount of information recorded can be regulated using the NOLOG option in the license.opt file.

Every time you stop and start the License Manager using the -k and -s options of the License Manager utility (wplicense), the License.Log file is backed up and replaced with an empty file. The most recent backup file is **License.Logbk1**. The backup filename extensions rotate from 1 to 5, with 1 always being the most current. When a backup file is made, the bk1 extension becomes bk2, bk2 becomes bk3, and so on, with bk5 being the oldest.

line settings

Line settings are input/output options, set using the UNIX stty command, that control how communication takes place between the host and a device. Line settings include baud rate, data bits, parity, and handshaking.

line settings delay

On some systems, printing problems occur because line settings are restored to their original settings before WordPerfect has finished sending a document to the printer, causing the end of the print job to not print.

To avoid this situation, you can set the number of seconds (usually 5-10) you want WordPerfect to wait before restoring the line settings to the system default after it finishes a print job.

line type

When you select the line type for a WPApp printer destination, you indicate whether the printer is set up for parallel or serial communications.

A parallel printer is attached to the computer with a wide ribbon cable and is usually located near the host system. A serial printer is attached to the computer with a smaller cable and may be located any distance from the host system.

If you select parallel as the line type, line settings are typically not needed. If you select serial as the line type, an stty command is added to the WPApp printer destination. You must specify line settings to describe the type of

serial communication that will take place, including baud rate, data bits, parity, and handshake.

Imadmin group

As system administrator, you can create a group called **lmadmin** in the UNIX /etc/group file to designate users other than a superuser to have License Manager privileges. Being a WordPerfect administrator does not grant License Manager privileges because the FLEXIm License Manager may be monitoring other products in addition to WordPerfect.

If you do not know how to create a group, refer to your UNIX operating system documentation.

local host

The local host is the UNIX machine where you initially log in.

local printer

A local printer is attached to the local host.

lp command

The **lp** command is used to print files on Lp spooler systems.

Lp spooler

The Lp spooler is the UNIX print spooler to which the lp command sends print jobs.

Lp Spooler output type

The Lp Spooler output type is one of the WPApp Spool Command output types. The Printer Destination program (wpdest) checks your system to see what kind of print spooler is in use, then sets up a typical spool command for it, for example:

$$lp -c -dlp1 < f >$$

If you have write permissions to the printer interface file in the printer interface directory, the Printer Destination program also sets up a specialized interface option to ensure that WordPerfect print jobs arrive at the printer raw.

Since the Lp Spooler output type is intended to work in typical Lp spooler configurations, it may not work with printers that require special handling at the system level.

A printer that does not print when set up using the Lp Spooler output type may print when set up using the Custom Spool Command output type, which allows for more flexibility and adaptation to specialized circumstances.

lpr command

The **lpr** command is used to print files on Lpr spooler systems.

Lpr spooler

The Lpr spooler is the UNIX print spooler to which the lpr command sends print jobs.

Lpr Spooler output type

The Lpr Spooler output type is one of the WPApp Spool Command output types. The Printer Destination program (wpdest) checks your system to see what kind of print spooler is in use, then sets up a typical spool command for it, for example:

$$lpr -c - Plp1 < f >$$

In addition, if you have write permissions to the /etc/printcap file, the Printer Destination program sets up a specialized filter option to ensure that WordPerfect print jobs arrive at the printer raw.

Since the Lpr Spooler output type is intended to work in typical Lpr spooler configurations, it may not work with printers that require special handling at the system level.

A printer that does not print when set up with the Lpr Spooler output type may print when set up with the Custom Spool Command output type, which allows for more flexibility and adaptation to specialized circumstances.

M

main Speller dictionary

The main Speller dictionary is accessed by all WordPerfect users. It is stored in the WordPerfect shlib10 directory and is named wpxx.lex, where xx is a two-letter language code indicating the language of the dictionary. For example, the Speller dictionary for U.S English is wpus.lex.

Some languages have algorithmic Speller dictionaries, meaning that they use rules rather than word lists to check spelling. Algorithmic dictionaries cannot be modified using the Speller utility.

main word list

The main word list includes all words in the Speller dictionary, so it is a very large file.

menu

A menu is a list of actions, features, or options. A menu bar lists the menu items horizontally across the top of the screen. A pull-down menu lists the menu items vertically and appears when you choose a menu item from the menu bar.

Ν

No entries

0

output type

Output types are the different ways in which WPApp printer destinations handle print jobs. See Custom Spool Command output type, WPApp Spool Command output type, Dedicated WPApp Device output type, Passthru output type, Disk output type.

ownership

The user who creates a file or directory becomes its owner and has certain permissions associated with ownership. On most systems, owners can view, open, retrieve and edit the files they own, while other users may have more limited permissions. You can change ownership.

Ρ

paper definition

A paper definition includes paper size (such as 8.5" x 11"), orientation (portrait vs. landscape), and location (such as upper cassette vs. lower cassette or continuous feed vs. manual feed). By selecting a paper definition, you establish various defaults for your WordPerfect document.

parallel printer

A parallel printer sends and receives data simultaneously on separate lines, as opposed to a serial printer which transports data back and forth across a single line. A parallel printer must be located near its host computer to avoid degradation of the signal.

parity

Parity is an error-checking mechanism used on some systems to determine whether the data received is the same as the data sent. You can set parity to odd, even, or none for a WPApp printer destination.

If you specify odd parity for a WPApp printer destination, the settings parenb and parodd are added to the stty command in the definition. If you specify even parity, the settings parenb and -parodd are added. If you specify no parity, the setting **-parenb** is added. A parity setting of none is typical for most printers.

Passthru output type

The Passthru output type does not involve the UNIX print spooler. The print job is sent directly to a printer attached to the back of a terminal. Passthru printing is not available on X stations for GUI WordPerfect.

pathname

The directory and subdirectory names that tell the operating system where to find a directory or file.

The pathname /wp/wpbin/wp identifies the wp file (the WordPerfect executable file) in the wpbin subdirectory of the wp directory.

permissions

Permissions are settings on a file or directory that grant or deny access to the owner, members of a group, and all others.

personal printer

While shared printers are available to all WordPerfect users, individual users can create personal printers by setting up personal copies of the printer driver files. A personal printer is available only to the person who sets it up.

For example, you might create a personal printer to customize a printer's initial font, forms, and so on. However, the same physical printer may receive WordPerfect print jobs processed by both shared and personal printer drivers.

.prs file

A .prs file is a printer driver file. You create a .prs file for each printer you set up for use with WordPerfect.

When you add a printer in WordPerfect, WordPerfect extracts the information unique to that printer from a printer .all file to create the .prs file for that printer.

By default, .prs files for your personal printers are stored in the .wprc subdirectory of your home directory. The .prs files for shared printers are stored in the WordPerfect shlib10 directory.

port (general usage)

In general terms, a port is an access point for data entry and exit. A port also refers to the socket where cables and other devices are attached to a computer. It is the physical connection used to link computer hardware.

port (WP 5.1 term)

A port is an earlier version of a printer destination. The following products used ports instead of printer destinations:

- WordPerfect 5.0
- WordPerfect 5.1
- WP Office 3.0
- WP Office 3.1
- WP Office 4.0
- GroupWise 4.1

Existing ports can be converted into printer destinations using the Printer Destination program (wpdest).

PostScript

PostScript is the standard page description language for desktop computer systems. It describes text, graphics, and halftones, as well as their placement on the page.

PostScript fonts are outline fonts in which mathematical formulas determine lines and curves, and parts of a character are filled with ink. PostScript

characters can be sized in as fine a detail as the printer is capable of producing.

printcap file

See /etc/printcap file.

Print Formatter (wpp)

The Print Formatter (wpp) replaces the codes used inside each WordPerfect document with codes specific to the make and model of printer where the document will be printed.

print job

A print job is the collection of temporary files and processes required to deliver a document from WordPerfect to the printer.

print priority

The print priority determines the order in which jobs print, from 1 to 100 (1 being the highest). Print jobs with a priority of 1 print first, then priority 2, and so on. By default, print jobs receive a priority of 50 and are printed on a first come, first print basis.

Print Server (wpexc)

The Print Server functions as a background process that starts automatically when the first user enters WordPerfect.

When you send a document to print, the Print Server provides communication between WPApp programs as they format documents and submit print jobs to the UNIX print spooler or other printer destinations.

The Print Server (wpexc) is located in the WordPerfect **shbin10** directory.

print spooler

The term "spooler" is an acronym for "simultaneous peripheral operation online." The print spooler controls print jobs so that users can continue working while a print job is processed.

The print spooler also lets several users send print jobs to the same printer at the same time, even when the printer is busy. The spooler places the print jobs in the print queue. When a print job reaches the top of the queue, it is printed.

print spooler file

The print spooler file is accessed by the UNIX print spooler as it processes print jobs.

- On Lpr spooler systems, the print spooler file is /etc/printcap.
- On AIX spooler systems, the print spooler file is /etc/qconfig.
- On Lp spooler systems, each printer has its own print spooler file, called an interface file, in the UNIX interfaces directory.

printer destination

A printer destination is the location where WordPerfect sends documents to print. WordPerfect print jobs must arrive at the printer raw, that is, with no character translation or changes to the line settings introduced by the UNIX print spooler. WPApp printer destinations and UNIX printer destinations handle this requirement differently.

WPApp printer destinations are created using the Printer Destination program (wpdest). The program automatically provides a default spool command (lpr, lp, or qprt), and, if you have write permissions, a specialized option is automatically added to the UNIX print spooler file (such as the /etc/printcap file on an Lpr spooler system) for the printer assigned to that destination. This specialized option ensures that WordPerfect print jobs arrive at the printer raw.

UNIX printer destinations (Lpr, Lp, and AIX destinations) are set up by you. The WordPerfect provides a default spool command (lpr, lp, or qprt), but does not provide a specialized option in the UNIX print spooler file for the printer assigned to that destination. Therefore, it is your responsibility to ensure that WordPerfect print jobs arrive at the printer raw.

Printer Destination program (wpdest)

The Printer Destination program lets you define WPApp printer destinations for printers on your system in addition to the printer destinations already set up during installation. WPApp printer destinations specify how to transfer WordPerfect print jobs to the printer. WPApp printer destinations are stored in the wpdest.def file in the WordPerfect shlib10 directory.

You can start the Printer Destination program while setting up printers in WordPerfect. You can also run the Printer Destination program from the command line without starting WordPerfect. The Printer Destination program (wpdest) is located in the WordPerfect shbin10 directory.

printer driver

A printer driver is a file with a .prs extension that contains all the codes and information necessary to print a WordPerfect document on a particular make and model of printer. Printer drivers are extracted from .all files when you set up printers for use with WordPerfect.

printer fonts

Printer fonts are fonts designed specifically for printing, rather than for screen display. Some printers are capable of printing many characters that cannot be displayed accurately on the screen.

.prs file

A .prs file is a printer driver file. You create a .prs file for each printer you set up for use with WordPerfect.

When you add a printer in WordPerfect, WordPerfect extracts the information unique to that printer from a printer .all file to create the .prs file for that printer.

By default, .prs files for your personal printers are stored in the .wprc subdirectory of your home directory. The .prs files for shared printers are stored in the WordPerfect shlib10 directory.

Q

qconfig file

See /etc/qconfig file.

qprt

The **qprt** command is used to print files on AIX spooler systems.

queue (n.)

A list of jobs to be processed. Printer Control displays the print job queue, which holds print jobs waiting to be printed.

queue (v.)

Send jobs to be processed. When you print a job in WordPerfect, you send the job to the print queue, or "queue" the job.

R

raw

Unprocessed and unchanged. WordPerfect print jobs must arrive at the printer raw, meaning that they must not be modified by the UNIX print spooler as it handles WordPerfect print jobs.

reboot

Reload the operating system and restart the computer.

remote host

A remote host is any host on the network except the one where you initially log in.

remote printer

A remote printer is attached to a remote host but is accessible from the local

remote shell command

The **rsh** command sends the command that follows it to the remote system. Depending on the version of UNIX on your system, you may need to use rcmd or remsh instead of rsh (rsh can mean restricted shell instead of remote shell in some versions of UNIX).

root

The root user is the system user with the most authority.

S

scroll

Move through text or a list that extends beyond the screen.

select

Use the mouse or the keyboard to highlight one or more items in a list that will be affected by the next action.

serial printer

A serial printer uses a handshaking protocol such as XON/XOFF or DTR to manage transmission of data across a single line. Setup of a serial printer includes establishing line settings to govern the transmission. A serial printer can be a long distance from its host computer, as opposed to a parallel printer which must be located near its host computer to avoid degradation of the signal.

Shared Code 1.0

Earlier WordPerfect products, such as WordPerfect 5.1 and WP Office 4.0, are able to share certain executables and data files. For these products, shared executables are installed in the WPApp shbin directory, and shared data files are installed in the WPApp shlib directory. This sharing of files conserves disk space, simplifies printing, and saves time on system administration tasks.

Starting with WordPerfect, these shared files are designated as WPApp Shared Code and have a revision number of their own, starting with 1.0. Because the shared files that ship with WordPerfect are not compatible with the shared files used by earlier WPApp products, the shared files are installed to new shared directories that include the revision number in the directory name. For the initial release of WordPerfect, the shared directories are named shbin10 and shlib10.

shared printer

Shared printers are available to all WordPerfect users and must be added by a WordPerfect administrator. The WordPerfect administrator sets up the printer drivers for shared printers.

However, individual users can add personal printers by setting up personal copies of the printer driver files. A personal printer is available only to the person who sets it up.

The same physical printer may receive WordPerfect print jobs processed by both shared and personal printer drivers.

shared temporary directory

By default, /tmp/wpc-hostname is the WordPerfect shared temporary directory, which holds the temporary files created during printing.

You can change the shared temporary directory using the SHTMP environment variable to the full pathname of a different directory. However, all users on the same host must use the same shared temporary directory in order for WPApp printing to function correctly.

shbin10 directory

The shbin10 subdirectory in the WordPerfect directory structure is where WPApp shared executable files are stored.

shlib10 directory

The shlib10 subdirectory in the WordPerfect installation directory is where shared data files such as printer drivers and terminal drivers are located.

SHTMP environment variable

By default, WordPerfect creates print-related temporary files in /tmp/wpchostname.

If you do not have enough space in /tmp/wpc-hostname to accommodate users' temporary print files, you can set the SHTMP environment variable for all users to a different directory. All users on the same host machine must have the same SHTMP setting.

Although personal, document-related temporary files can be stored in multiple locations, all print-related temporary files must be stored in a single location on the same host machine to avoid printing problems for WordPerfect users.

Speller dictionary

A Speller dictionary is the file which contains the words WordPerfect uses as a basis of comparison during a spell-check. For the U.S. English version of WordPerfect, the main speller dictionary file is wpus.lex, located in the shlib10 directory.

Speller utility (wpsputl)

The Speller utility (wpsputl), located in the WordPerfect shbin10 directory, lets you manage WordPerfect Speller dictionaries, including such activities as adding and deleting words, optimizing the dictionary file, and converting and combining dictionaries.

spool command

The spool command is used to send print jobs to the UNIX print spooler. For example, lpr, lp, or qprt are spool commands.

spooler

See print spooler.

spooler destination name

The spooler destination name is the system-level name by which the print spooler accesses a particular printer (for example, lp1).

spooler options

Spooler options are arguments in a spool command that control how the UNIX print spooler processes print jobs. For example, the spooler option -# indicates the number of copies to print for some spool commands. Spool commands for WPApp printer destinations can include any spooler options that you would use with the spool command at the system level.

superuser

A superuser is a user who is not restricted by file permissions, and therefore can read, write to, and remove any file on the system. Typically, the superuser logs in as root. Superuser status is generally confined to those responsible for system administration.

supplementary dictionary

Your personal supplementary dictionary is named usernamexx.sup (where username is your login name and xx is the two-letter language code indicating the language of the dictionary). When you add words to your dictionary while spell-checking a document, you add them to your supplementary dictionary, not the main Speller dictionary. Your supplementary dictionary is stored in the .wprc subdirectory of your home directory.

switch box

A switch box is a device that can send print jobs from a single device to multiple printers. The switch box string causes the switch box to route documents to the specific printer you chose in WordPerfect.

You can use decimal, hexadecimal, octal, or binary values to create a switch box string. Separate byte values with commas. Put square brackets around decimal strings: [27,30,13]. Put angle brackets around hexadecimal strings: <1b,13,0d>. Put braces around octal strings: {33,36,1,5}. Put colons around binary strings: :11011,11110,1101:. Put quotation marks around characters: "ABCDEFG".

You can also use mixed values to create strings, such as [27]"A". The maximum size allowed for a single value is decimal 255.

Т

TCP

Internet Transmission Control Protocol (TCP) is a virtual circuit protocol that provides reliable, flow-controlled, two-way transmission of data.

temporary directory

By default, /tmp is the WordPerfect temporary directory, which holds document-related temporary files.

You can change the WordPerfect temporary directory by setting the WPTMP environment variable to the full pathname of a different directory. Users can use different WordPerfect temporary directories on the same host. Doing so lets you distribute document-related temporary files throughout your system, instead of keeping them all in the same directory.

terminal driver

A terminal driver is a file with a .trs extension that contains all the codes and information necessary to run WordPerfect on a particular make and model of character-based terminal.

thesaurus

A thesaurus displays the synonyms (and sometimes antonyms) for various words. The thesaurus for the U.S. English version of WordPerfect is wpus.ths. It is found in the shlib10 directory.

third-party spooler

The UNIX operating system includes standard print spoolers. Third-party packages may also include customized spoolers for submitting print jobs for their products.

U

UDP

Internet User Datagram Protocol (UDP) is an alternative to TCP. UDP requires a small, fixed number of sockets, which can be preferable on systems with limited resources.

UNIX mail

UNIX mail is electronic mail that is handled by standard UNIX mail commands (such as mail or mailx), rather than by a specialized e-mail application.

UNIX printer destination

UNIX printer destinations (Lpr, Lp, or AIX destinations) are set up entirely by you.

The Installation program, WordPerfect, or Printer Destination program (wpdest) provides a default spool command (lpr, lp, or qprt), but does not provide a specialized spooler option in the UNIX print spooler file for the printer assigned to that destination. Therefore, it is your responsibility to ensure that WordPerfect print jobs arrive at the printer raw, meaning that they must not be modified by the UNIX print spooler as it handles WordPerfect print jobs.

Upgrade utility (wpupg)

The Upgrade utility can be used for three purposes:

- Upgrade from an expiring to a non-expiring copy
- Extend the demonstration period
- Display the product upgrade number

The Upgrade utility (wpupg) is located in the WordPerfect shbin10 directory.

V

vendor daemon (wplmd7)

The vendor daemon dispenses licensed sessions of the requested program. It is configured by WordPerfect to contain WordPerfect-specific encryption codes. The WordPerfect vendor daemon (wplmd7) is executed from the WordPerfect shbin10 directory.

WordPerfect 7c (wp)

WordPerfect 7c (wp), located in the WordPerfect wpbin directory along with the WordPerfect 7g (xwp), is designed for word processing in a characterbased environment.

WordPerfect 7g (xwp)

WordPerfect 7g (xwp), located in the WordPerfect wpbin directory, is designed for word processing in graphical user interface (GUI) environments.

WordPerfect administrator

The user who installs WordPerfect automatically becomes the primary WordPerfect administrator. The primary WordPerfect administrator can authorize additional WordPerfect administrators.

WordPerfect administrators share authority over shared printers, system default preferences, print restrictions, file locking, and other aspects of WordPerfect management that affect all users.

Authorized WordPerfect administrators can use the -adm startup option with WordPerfect to add and edit shared printers. They can also use the Printer Destination program (wpdest) to create and edit WPApp printer destinations.

WordPerfect Print (wprint)

WordPerfect Print (wprint), located in the WordPerfect shbin10 directory, lets you print WordPerfect documents from the command line or from a script file, including merge capabilities.

.wp7c.set file

The .wp7c.set file is the preference settings file.

- A personal .wp7c.set file contains a user's preference selections. It is stored in the .wprc subdirectory of each user's home directory.
- The shared .wp7c.set file records the default preference settings for the system. It is stored in the WordPerfect wplib directory.

WPApp

The term "WPApp" refers to those programs, processes, and files that can be shared by versions of WordPerfect and GroupWise using Shared Code 1.0. WordPerfect 7g and 7c currently use Shared Code 1.0.

Both WordPerfect 7g and 7c are produced by Corel. Earlier products produced by WordPerfect Corporation use the term "WPApp" in place of "WPApp".

WPApp printer destination

WPApp printer destinations are set up by the Printer Destination program (wpdest). The Installation program and WordPerfect also use the Printer Destination program to create WPApp printer destinations.

The Printer Destination program automatically provides a default spool command (lpr, lp, or qprt), and if you have write permissions, a specialized spooler option is automatically added to the UNIX print spooler file for the printer assigned to that destination. This new option ensures that WordPerfect print jobs arrive at the printer raw, meaning that they must not be modified by the UNIX print spooler as it handles WordPerfect print jobs.

WPApp Spool Command output type

When you create a WPApp Spool Command destination (Lpr Spooler, Lp Spooler, or AIX Spooler), the Printer Destination program checks your system to see what kind of UNIX print spooler is in use, then sets up a spool command for it. In addition, if you have write permissions to the UNIX print spooler file(s), the program sets up a specialized spooler option to ensure that WordPerfect print jobs arrive at the printer raw.

Since WPApp Spool Command destinations are set up to work in typical configurations, they may not work with printers that require special handling at the system level.

wpbin directory

The wpbin subdirectory in the WordPerfect directory structure is where WordPerfect executable files are stored.

.wpc7c.set file

The .wpc7c.set file stores print preferences information.

- A personal .wpc7c.set file contains a user's personal Print Preferences selections. It is stored in the .wprc subdirectory of each user's home directory.
- The shared .wpc7c.set file stores the default print preferences set by the WordPerfect administrator. It is stored in the WordPerfect shlib10 directory.

.wprc subdirectory

The .wprc subdirectory of your home directory holds WordPerfect settings files, personal printer drivers, and so on.

.wprc subdirectory

The .wprc subdirectory of your home directory holds WordPerfect settings files, personal printer drivers, and so on.

wpdest.def file

The wpdest.def file contains the information for the WPApp printer destinations you create using the Printer Destination program (wpdest) for use with WordPerfect. The **wpdest.def** file is stored in the **shlib10** directory.

wpexc (Print Server)

See Print Server (wpexc).

wpgraphics directory

The wpgraphics subdirectory in the WordPerfect directory structure is where graphics files are stored.

wpinstall (Installation program)

See Installation program.

WPLANG environment variable

By default, WordPerfect runs in the language chosen as the system default during installation. You can change individual user's default language by setting the WPLANG environment variable to the preferred language using its two-letter language code.

wplearn directory

The wplearn subdirectory in the WordPerfect directory structure is where the learning files are stored.

wplib directory

The wplib subdirectory in the WordPerfect directory structure is where WordPerfect data files are stored.

wplicense (License Manager utility)

See License Manager utility (wplicense).

wplmd7 (vendor daemon)

See vendor daemon (wplmd7).

wpmacros directory

The wpmacros subdirectory in the WordPerfect directory structure is where WordPerfect macros are stored.

WPOTHER

The WPOTHER option identifies custom or remote WordPerfect print jobs on Lp spooler systems. Because WordPerfect print jobs arrive at the print spooler already formatted, the WPOTHER option sends documents directly to the printer, thereby protecting them from interference from the system printer interface file.

wpp (Print Formatter)

See Print Formatter (wpp).

wpped script

The **wpped** script is a tool that lets you modify the UNIX print spooler file(s) on Lpr and Lp spooler systems. Using it, you can add the specialized spooler option that ensures that WordPerfect print jobs arrive at the printer raw, without creating a WPApp printer destination.

The **wpped** script is located in the **shbin10** directory.

wpport.def file

The wpport.def file is an earlier version of the wpdest.def file. The following products related to WordPerfect used ports defined in the wpport.def file instead of printer destinations:

- WordPerfect 5.0
- WordPerfect 5.1
- WP Office 3.0
- WP Office 3.1
- WP Office 4.0
- GroupWise 4.1

Ports in an existing wpport.def file can be converted into printer destinations using the Printer Destination program (wpdest).

wprint (WordPerfect Print)

See WordPerfect Print (wpp).

wpsputl (Speller utility)

See Speller utility (wpsputl).

WPTMP environment variable

WordPerfect creates document-related temporary files for each active user and, by default, stores them in /tmp. If you do not have enough space in /tmp to accommodate users' temporary files, you can set the value of the WPTMP environment variable to a different directory.

You can set WPTMP to the same directory for all WordPerfect users, so that all users' temporary files are created in the designated directory instead of the /tmp directory. You can also set users' WPTMP environment variable to different directories, such as home directories, so that document-related temporary files get distributed across your system.

wpupg (Upgrade utility)

See *Upgrade utility* (wpupg).

X

xwp (WordPerfect 7g)

See WordPerfect 7g (xwp).

No entries

Ζ

No entries

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